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Highway Loss Data Institute
Insurance Collision Report

Passenger Cars, Vans, Pickups, and Utility Vehicles

1988 Models During Their First Year
1987 Models During Their First Two Years
1986 Models During Their First Three Years

HLDI R88-2

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SUMMARY

This Highway Loss Data Institute report describes variations in both the frequency and the size of collision coverage claims for damage to 1986, 1987, and 1988 model year passenger cars, vans, pickups, and utility vehicles.

Passenger Cars

- Among 1988 vehicles, the midsize Dodge Dynasty had the best overall collision coverage result (average loss payment per insured vehicle year) and the midsize Toyota Supra had the worst.
- Nearly all of the models with the best results were large or midsize domestic vehicles; many of them were station wagons or passenger vans.
- Nearly all of the models with the worst results were small or midsize imported vehicles; most of them were sports or specialty vehicles.
- Collision coverage results continue to show substantial variations among vehicles grouped by size and body style. In many cases, the best and worst results for cars of the same size and body style vary by a factor of two or more.
- Claim frequencies, average loss payments per claim, and average loss payments per insured vehicle year generally decreased with increasing vehicle size in all body style groups.

Vans, Pickups, Utility Vehicles

- Among all vans, pickups, and utility vehicles, small utility vehicles and small pickups had the highest average loss payments per insured vehicle year; vans and large utility vehicles had the lowest.
- For the 1988 model year, the Ford Ranger 4x4 and Toyota Standard Bed 4x4, both small pickups, had the highest average loss payments per insured vehicle year and the Chevrolet 10 Extended Cab, a standard pickup, had the lowest.
- For the three model years, Toyota pickups generally had high collision claim frequencies and high average claim amounts.
- For pickups and utility vehicles, results were clearly related to vehicle size with smaller vehicles having higher average loss payments per insured vehicle year than larger vehicles.
- For each of the three model years, small, intermediate, and large utility vehicles generally had similar claim frequencies, but the average loss payments per claim decreased with increasing vehicle size.
- For the 1987 and 1986 model years, small pickups and standard pickups had similar average loss payments per claim, but the small pickups had substantially higher claim frequencies.

INTRODUCTION

The Highway Loss Data Institute (HLDI) — a nonprofit, public service organization — gathers, processes, and summarizes insurance data. Its research addresses the human and economic losses resulting from owning and operating motor vehicles, especially the ways such losses vary among different kinds of vehicles.

This report describes the collision coverage results of 1988 models during their first year of availability, 1987 models during their first two years, and 1986 models during their first three years. Results are presented for passenger cars, and for vans, pickups, and utility vehicles.*

This report is based on collision coverage and loss data supplied by 13 insurers: Aetna, Allstate, Fireman's Fund, GEICO, Kemper, Liberty Mutual, Nationwide, Prudential, Safeco, Sentry, State Farm, Travelers, and USAA. Detailed explanations of data sources and methods of analysis are given in HLDI Report R88-1. A complete list of the vehicle classifications by make, series, body style, and size class appears in Appendix A, and definitions are given in Appendix B.

RESULTS AND DISCUSSION

The results in this report are presented in two sections. The first section summarizes variations in both the frequency and the size of collision claims for damage to private passenger cars from three model years: 1988 models during their first year of availability, 1987 models during their first two years, and 1986 models during their first three years. The second section contains similar summaries for vans, pickups, and utility vehicles insured under noncommercial collision coverages.

The results were standardized to minimize differences that might be attributable to variations in the mix of deductible amounts and operator age groups among different vehicles. Both the frequency and average size of collision coverage losses vary with the deductible amount and the age group of the operators. Standardizing these two nonvehicle factors ensures that their mix is the same for each result. Therefore, to the extent that the distributions of age within each operator age group and amounts within each deductible group do not vary substantially for different vehicles, these effects cannot bias comparisons among the various results. Other nonvehicle factors have not necessarily been eliminated from the results presented in this report.

All of the results are shown in relative terms, with 100 representing the average for all passenger cars of each model year. Thus, for example, the relative average loss payment per insured vehicle year of 37 for the Dodge Dynasty (Table 1) indicates a result that is 63 percent below the result for all 1988 model year passenger cars combined; the midsize Toyota Supra result of 255 indicates that its average loss payment per insured vehicle year was more than two and one-half times the result for all 1988 passenger cars. The results for vans, pickups, and utility vehicles are also shown to the all-passenger-car results for each model year.

Passenger Cars

The results for passenger cars are presented by body style within each of the three vehicle size categories — small, midsize, and large. Appendix B contains a full description of the HLDI system for classification of passenger cars by body style and size. The results for the 1988 model year passenger cars are based on approximately 1.3 million insured vehicle years of exposure, those for the 1987 models on approximately 5.3 million insured vehicle years, and those for the 1986 models on approximately 9.6 million insured vehicle years. Results are not given for any individual vehicle series with less than 1,000 insured vehicle years of exposure. Thus, this report may not include some 1988 models that in previous model years had particularly good or poor collision coverage results. Generally, the greater the exposure associated with a result, the more confidence can be placed in the result.

1988 Models During Their First Year

Table 1 summarizes the 1988 model year passenger cars with the lowest and highest relative average loss payments per insured vehicle year during their first year of availability. The average loss payment per insured vehicle year combines claim frequency and average loss payment per claim and thus accounts for not only how often collision claims are made but also the magnitude of such claims. The vehicles listed in Table 1 were taken from the 183 individual 1988 vehicle series that had more than 1,000 insured vehicle years of exposure. The standardized results for all 1988 vehicles combined were 10.3 for claim frequency, $1,990 for average loss payment per claim, and $204 for average loss payment per insured vehicle year.

Large domestic models represented just over half the list of vehicles with the best overall collision coverage results, with passenger vans the majority of these. The Dodge Dynasty (37) had the lowest average loss payment per insured vehicle year, and six other models had a result less than half the 1988 all-passenger-car result. Unlike previous reports, midsize models represented a substantial proportion (7 of 20) of models with the best results. Both the four-door and two-door versions of the midsize Chevrolet Celebrity (66) were among the list of vehicles with the best results. The midsize Merkur Scorpio (61) was the only specialty car on the list. The Subaru DL/GL station wagon (64) was the only Japanese import, as well as one of only two small vehicles, listed among the vehicles with the best results.

As was the case with last year's HLDI collision report, imported models dominated the list of vehicles with the worst overall collision coverage results. Sixteen of the 20 listed vehicles were sports or specialty models. Unlike previous

* A separate, supplemental volume to this report, Appendices to R88-2, is available upon request. It contains detailed claim frequency and average loss payment per claim results for two classes of deductibles and for youthful and no youthful operators. The supplement also provides separate, detailed results by year of availability for 1986 and 1987 models.

Table 1 Relative Average Loss Payments Per Insured Vehicle Year for 1988 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*

Best Results				Worst Results			
Dodge Dynasty	4Dr.	Midsize	37	Toyota Supra	Sp.	Midsize	255
Dodge Caravan	P.V.	Large	43	Nissan 200SX	2Dr.	Small	207
Plymouth Reliant	2Dr.	Midsize	45	Chevrolet Corvette	Sp.	Small	206
Chevrolet Astro Van	P.V.	Large	46	Mitsubishi Mirage	4Dr.	Small	187
Chrysler New Yorker (E Body)	4Dr.	Midsize	46	Jaguar XJ-S	Sp.	Midsize	181
GMC Safari Van	P.V.	Large	47	Ford Mustang	Sp.	Midsize	178
Plymouth Voyager	P.V.	Large	48	Mazda MX-6	2Dr.	Small	176
Ford Crown Victoria	S.W.	Large	50	Nissan 300ZX	Sp.	Small	173
Dodge Grand Caravan	P.V.	Large	51	Chevrolet Camaro	Sp.	Midsize	170
Plymouth Grand Voyager	P.V.	Large	52	Mercedes 260/300E	Sp.	Large	166
Chevrolet Caprice	4Dr.	Large	56	Toyota MR2	Sp.	Small	165
Chrysler New Yorker 5th Ave	4Dr.	Large	59	Ford EXP	Sp.	Small	161
Merkur Scorpio	Sp.	Midsize	61	BMW 500 Series	Sp.	Midsize	158
Buick Century	4Dr.	Midsize	61	Ford Mustang Conv.	Sp.	Midsize	158
Ford Aerostar	P.V.	Large	62	Honda Civic CRX	Sp.	Small	157
Subaru DL/GL	S.W.	Small	64	Jaguar XJ6	Sp.	Large	157
Chevrolet Celebrity	4Dr.	Midsize	66	Pontiac Firebird	Sp.	Midsize	157
Chevrolet Celebrity	2Dr.	Midsize	66	BMW 735i	Sp.	Large	154
Dodge Shadow	4Dr.	Small	67	Acura Integra	4Dr.	Small	153
Mercury Grand Marquis	4Dr.	Large	67	Oldsmobile Toronado	Sp.	Midsize	152

*100 represents the average for all 1988 passenger vehicles ($204) P.V. = Passenger Van, S.W. = Station Wagon, Sp. = Sports or Specialty

years, however, where small models dominated the worst results list, the 20 listed vehicles are comprised of nine small, eight midsize, and three large models. The imported midsize Toyota Supra (255) headed this list with a value more than two and one-half times the 1988 all-passenger-car result. The Nissan 200SX (207) and Chevrolet Corvette (206) also had results more than twice the 1988 model year average.

Detailed collision coverage results for all 1988 model year vehicles with at least 1,000 insured vehicle years of exposure are given in Table 4 (page 6). The values displayed are total exposure, measured in insured vehicle years, and relative values for three loss categories — claim frequency per 100 insured vehicle years, average loss payment per claim, and average loss payment per insured vehicle year. The value 100 corresponds to the average result for all passenger cars in each loss category. The individual series are listed in ascending sequence of the relative average loss payment per insured vehicle year within each size and body style subgroup.

The Mitsubishi Wagon (180) had the highest relative claim frequency and the Dodge Dynasty (56) had the lowest. The Chevrolet Corvette (292) had the highest average loss payment per claim (approximately $5,800), and the Toyota Supra (199) had the second highest. The GMC Safari Van (52) and Chevrolet Astro Van (55) had the two lowest average loss payments per claim (less than $1,100).

As has been the case in previous years, the collision coverage results for 1988 models continue to show substantial variations among vehicles grouped by size and body style. In many cases, the best and worst results for cars of the same size and body style vary by a factor of two or more.

Table 4 also shows that claim frequencies, average loss payments per claim, and average loss payments per insured vehicle year generally decreased with increasing vehicle size in each body style group. For example, two-door vehicles as a group had the following relative claim frequencies for the three size classes: small (121), midsize (107), and large (95).

1987 Models During Their First Two Years

Table 2 summarizes the best and worst collision coverage results for 1987 model year passenger cars during their first two years of availability. The vehicles listed in Table 2 were taken from the 264 individual 1987 vehicle series that had more than 1,000 insured vehicle years of exposure. The standardized results for all 1987 vehicles combined for both years of availability were 10.2 for claim frequency, $1,919 for average loss payment per claim, and $196 for average loss payment per insured vehicle year.

Most of the 1987 vehicles with the best results were domestic models and most are classified as large vehicles. Fifteen of the 20 vehicles with the best collision results were

Table 2 Relative Average Loss Payments Per Insured Vehicle Year for 1987 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*

Best Results				Worst Results			
GMC Safari Van	P.V.	Large	45	Volkswagen Scirocco	2Dr.	Small	308
Chevrolet Astro Van	P.V.	Large	50	Mitsubishi Starion	2Dr.	Small	286
Mercury Lynx	S.W.	Small	53	Plymouth Conquest	2Dr.	Small	277
Plymouth Voyager	P.V.	Large	53	Alfa Romeo Milano	4Dr.	Small	263
American Eagle	S.W.	Midsize	54	Porsche 944 Coupe	Sp.	Small	254
Mercury Grand Marquis	S.W.	Large	54	Porsche 911 Coupe	Sp.	Small	253
Dodge Diplomat	4Dr.	Large	55	BMW 325 2D	Sp.	Midsize	234
Dodge Caravan	P.V.	Large	55	Renault GTA	2Dr.	Small	219
Ford Crown Victoria	2Dr.	Large	56	Audi 4000	4Dr.	Midsize	211
Chevrolet Caprice	4Dr.	Large	57	Alfa Romeo Spider Conv.	Sp.	Small	210
Pontiac Safari Wagon	S.W.	Large	57	BMW 325i Conv.	Sp.	Midsize	196
Mercury Grand Marquis	4Dr.	Large	58	Mitsubishi Cordia	2Dr.	Small	195
Ford Crown Victoria	4Dr.	Large	58	Chevrolet Corvette	Sp.	Small	193
Ford Crown Victoria	S.W.	Large	60	Jaguar XJ-S	Sp.	Midsize	188
Buick LeSabre	S.W.	Large	61	Saab 900	2Dr.	Small	185
Toyota Camry	S.W.	Midsize	61	Chevrolet Corvette Conv.	Sp.	Small	184
Ford Aerostar	P.V.	Large	61	Mazda RX-7	Sp.	Small	182
Dodge Colt Vista 4WD	S.W.	Midsize	63	Nissan 300ZX	Sp.	Small	180
Honda Civic 4WD	S.W.	Small	64				
Buick Century	S.W.	Midsize	66				

*100 represents the average for all 1987 passenger vehicles ($196). P.V. = Passenger Van, S.W. = Station Wagon, Sp. = Sports or Specialty

station wagons or passenger vans. The GMC Safari Van (45) and Chevrolet Astro Van (50) led the list with results half or less the 1987 all-passenger-car result. Two-door (56), four-door (58), and station wagon (60) versions of the Ford Crown Victoria, as well as four-door (58) and station wagon (54) versions of the Mercury Grand Marquis were listed among the vehicles having the best results. Four midsize and two small station wagons also made this list; these included the Mercury Lynx (53), American Eagle (54), Toyota Camry (61), Dodge Colt Vista 4WD (63), Honda Civic 4WD (64), and Buick Century (66).

As was the case with 1988 model results, most of the 1987 vehicles with the worst overall collision losses were imported models. The two Chevrolet Corvettes were the only domestic models. All but two of the cars with the worst results were two-door or sports or specialty models and 14 of those 18 vehicles are classified as small cars. The Volkswagen Scirocco (308) had the highest average loss payment per insured vehicle year. The Mitsubishi Starion (286), Plymouth Conquest (277), Alfa Romeo Milano (263), Porsche 944 Coupe (254), and Porsche 911 Coupe (253) also had overall collision losses that were more than two and one-half times the 1987 all-passenger-car result.

Detailed collision coverage results for all 1987 models with at least 1,000 insured vehicle years of exposure are given in Table 5 (page 13). The results displayed are the combined results for the first two years of the 1987 models and are presented by vehicle size group and body style subgroup.

The Mitsubishi Starion (204) and Volkswagen Scirocco (197) had the two highest claim frequencies among the 1987 passenger cars listed in Table 5. The Porche 911 Targa/Cabriolet (52) had the lowest claim frequency, but it also had a very high average loss payment per claim. The Porsche 911 Coupe (353) had the highest average loss payment per claim (nearly $6,800) among the 1987 passenger cars, and the Chevrolet Astro Van (63) had the lowest (approximately $1,200).

The results for 1987 models in Table 5 are similar to those for the 1988 models in Table 4. For both model years, vehicles with the best results are often separated from those with the worst results within the same body style and car size group by a factor of two or more, and collision loss results tend to decrease with increasing vehicle size for each of the body style groups.

1986 Models During Their First Three Years

Table 3 summarizes the 1986 model year passenger cars with the best and worst collision coverage results during their first three years of availability. The vehicles listed were taken from the 262 individual 1986 vehicle series that had more than 1,000 insured vehicle years of exposure. The standardized results for all 1986 vehicles combined for all three years of availability were 10.1 for claim frequency, $1,810 for average loss payment per claim, and $183 for average loss payment per insured vehicle year.

Table 3 Relative Average Loss Payments Per Insured Vehicle Year for 1986 Model Year Passenger Vehicles With the Best and Worst Collision Coverage Results*

Best Results				Worst Results			
Pontiac Parisienne	S.W.	Large	51	Porsche 911 Targa/Cabriolet	Sp.	Small	299
Ford LTD	S.W.	Midsize	52	Audi 5000 Quattro 4D	Sp.	Midsize	282
Ford Crown Victoria	2Dr.	Large	55	Porsche 928 Coupe	Sp.	Small	269
Pontiac Parisienne	4Dr.	Large	55	BMW 735i	Sp.	Large	264
Plymouth Voyager	P.V.	Large	56	Porsche 944 Coupe	Sp.	Small	261
Dodge Caravan	P.V.	Large	57	Chevrolet Corvette Conv.	Sp.	Small	258
American Eagle	4Dr.	Midsize	57	Audi GT Coupe	2Dr.	Midsize	251
Chevrolet Caprice	2Dr.	Large	58	Dodge Conquest	2Dr.	Small	249
Mercury Grand Marquis	2Dr.	Large	58	Mercedes 560SEC	Sp.	Large	244
Mercury Grand Marquis	4Dr.	Large	59	Mitsubishi Starion	2Dr.	Small	239
Chevrolet Astro Van	P.V.	Large	59	Plymouth Conquest	2Dr.	Small	236
Ford Crown Victoria	4Dr.	Large	60	BMW 325e 2D	Sp.	Midsize	219
Merucry Lynx	S.W.	Small	63	Porsche 911 Coupe	Sp.	Small	218
Chevrolet Caprice	4Dr.	Large	63	Volkswagen Scirocco	2Dr.	Small	217
American Eagle	S.W.	Midsize	64	Mitsubishi Cordia	2Dr.	Small	212
Ford Escort	S.W.	Small	65	BMW 325e 4D	Sp.	Midsize	204
Oldsmobile Custom Cruiser	S.W.	Large	66	Chevrolet Corvette	Sp.	Small	198
Ford Crown Victoria	S.W.	Large	66	Audi 5000 SW	Sp.	Midsize	185
GMC Safari Van	P.V.	Large	66	Alfa Romeo Spider Conv.	Sp.	Small	181
				Mazda RX-7	Sp.	Small	179

*100 represents the average for all 1986 pasenger vehicles ($183). P.V. = Passenger Van; S.W. = Station Wagon; Sp. = Sports or Specialty

All of the 1988 vehicles with the best average loss payments per insured vehicle year were domestic models and most were large models. The Pontiac Parisienne station wagon (51) and Ford LTD station wagon (52) had the lowest results among the 1986 passenger cars. Two-door (58) and four-door (59) versions of the Mercury Grand Marquis, as well as two-door (55), four-door (60), and station wagon (66) versions of the Ford Crown Victoria, were listed among the 1986 model vehicles having the best results. Multiple versions of the Pontiac Parisienne, American Eagle, and Chevrolet Caprice were also included among the models with the lowest results for 1986 passenger vehicles.

All but the two Chevrolet Corvettes of the 1986 vehicles listed as having the worst average loss payments per insured vehicle year were imported models. All of the cars with the worst results were two-door or sports or specialty models and all but two of the vehicles are classified as small or midsize cars. The Porsche 911 Targa/Cabriolet (299) had the highest average loss payment per insured vehicle year. Most of these vehicles had collision losses that exceeded the 1986 all-passenger-car result by a factor of two or more.

Detailed collision coverage results for all 1986 models with at least 1,000 insured vehicle years of exposure are given in Table 6 (page 22). The results displayed are the combined results of the first three years for the 1986 models.

Among the 1986 passenger cars, the two-door Mitsubishi Starion (179) had the highest relative claim frequency and the four-door American Eagle (58) had the lowest. For average loss payment per claim, the Porsche 911 Targa/Cabriolet (314) had the highest value (nearly $5,700) and the Volkswagen Vanagen (65) had the lowest (less than $1,200).

(Continued on Page 31)

Table 4
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
All	**All**	**1299917**	**100 = 10.3**	**100 = $1990**	**100 = $204**
		SMALL CARS			
Two-Door Models		**200689**	**121**	**104**	**126**
Plymouth	Sundance	3359	99	97	96
Toyota	Corolla FX	4906	92	108	100
Toyota	Tercel	13893	122	84	102
Mazda	323	5974	92	112	103
Chevrolet	Spectrum	2126	111	96	106
Chevrolet	Sprint	2717	117	97	112
Honda	Civic	8997	115	98	113
Volkswagen	Fox	3051	119	99	117
Dodge	Colt	3908	121	97	118
Ford	Festiva	13565	102	115	118
Acura	Integra	4280	114	103	118
Volkswagen	Golf	1157	120	99	119
Subaru	Justy	2104	110	110	121
Hyundai	Excel	16115	134	90	121
Ford	Escort	21558	122	99	121
Mercury	Tracer	7673	110	110	121
Dodge	Shadow	3551	129	96	123
Plymouth	Colt	3125	119	104	124
Nissan	Pulsar	4195	133	95	126
Yugo	Yugo	3341	121	105	127
Dodge	Daytona	8517	128	105	134
Nissan	Sentra	20859	130	104	135
Saab	900	1688	98	139	135
Ford	88 1/2 Escort	3590	127	108	137
Pontiac	Lemans	7104	137	102	140
Subaru	XT Coupe	1235	135	105	141
Toyota	Corolla	4249	155	96	150
Toyota	Celica	8489	139	108	150
Mazda	MX-6	7255	115	153	176
Nissan	200SX	1272	133	156	207

(See notes on page 12.)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Four-Door Models		**146684**	**110**	**97**	**107**
Dodge	Shadow	3053	104	64	67
Plymouth	Horizon	5976	98	84	82
Ford	Escort	8378	98	86	84
Chevrolet	Nova	10638	96	93	89
Dodge	Omni	5273	98	93	91
Plymouth	Sundance	3366	106	87	92
Honda	Civic	15780	115	84	97
Mercury	Tracer	5110	93	106	98
Toyota	Corolla	14983	102	98	100
Subaru	DL/GL	1274	106	99	104
Mazda	323	10038	107	104	111
Isuzu	I-Mark	1049	116	97	112
Nissan	Sentra	3346	105	111	116
Hyundai	Excel	26907	124	97	120
Chevrolet	Spectrum	3010	123	99	122
Volkswagen	Fox	4500	121	101	122
Volkswagen	Jetta	5500	121	104	126
Plymouth	Colt	1753	110	115	126
Chevrolet	Sprint	1164	97	131	127
Ford	88 1/2 Escort	1461	107	123	132
Dodge	Colt	2078	114	117	134
Pontiac	Lemans	6684	127	106	136
Acura	Integra	1444	116	132	153
Mitsubishi	Mirage	1080	157	119	187
Station Wagons/Passenger Vans		**20649**	**93**	**90**	**84**
Subaru	DL/GL	1464	82	79	64
Ford	Escort	4536	90	76	69
Subaru	DL/GL 4WD	3781	70	104	73
Toyota	Corolla	1335	92	86	78
Mercury	Tracer	1373	87	103	89
Volkswagen	Fox	1924	117	99	116
Mitsubishi	Wagon	1073	180	66	120

(See notes on page 12.)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Sports & Specialty		**26827**	**120**	**126**	**152**
Pontiac	Fiero	2834	131	93	121
Mazda	RX-7	3750	111	113	126
Mercedes	560SL Conv.	1198	69	195	135
Honda	Civic CRX	5968	139	113	157
Ford	EXP	1988	141	114	161
Toyota	MR2	1320	148	111	165
Nissan	300ZX	1020	112	154	173
Chevrolet	Corvette	2130	70	292	206
		MIDSIZE CARS			
Two-Door Models		**206019**	**107**	**101**	**108**
Plymouth	Reliant	1086	68	67	45
Chevrolet	Celebrity	1219	89	74	66
Oldsmobile	Cutlass FWD	4021	97	75	73
Pontiac	Grand Prix	5413	85	86	73
Buick	Regal	10443	104	85	88
Buick	Skyhawk	1738	98	94	91
Oldsmobile	Cutlass Ciera	2461	77	120	92
Ford	Tempo	4369	93	100	93
Oldsmobile	Cutlass RWD	4128	78	120	93
Buick	Skylark	2683	93	104	96
Honda	Prelude	15937	114	91	104
Chevrolet	Monte Carlo	4491	85	123	104
Oldsmobile	Calais	8030	109	97	105
Pontiac	Grand Am	20378	95	111	106
Mercury	Cougar	13009	97	111	107
Pontiac	Sunbird	4964	120	93	111
Honda	Accord	9933	112	102	114
Chevrolet	Beretta	54173	122	97	118
Chevrolet	Cavalier	17161	113	108	121
Chrysler	LeBaron	4805	122	101	124
Ford	Thunderbird	13267	101	126	127

(See notes on page 12.)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Four-Door Models		**311090**	**91**	**93**	**85**
Dodge	Dynasty	3879	56	66	37
Chrysler	New Yorker (E Body)	1706	66	70	46
Buick	Century	7599	76	80	61
Chevrolet	Celebrity	14808	75	88	66
Chevrolet	Cavalier	6276	84	81	68
Mercury	Topaz	4724	82	84	69
Mercury	Sable	6113	87	79	69
Plymouth	Reliant	9829	79	92	72
Pontiac	Sunbird	1655	88	84	74
Dodge	Aries	7779	77	96	74
Toyota	Camry	28767	82	91	75
Oldsmobile	Cutlass Ciera	16916	73	103	75
Chrysler	New Yorker (C Body)	5881	71	108	76
Volvo	240	3719	85	92	78
Renault	Premier	2819	76	103	78
Ford	Tempo	14104	86	92	79
Buick	Skylark	2962	90	89	80
Ford	Taurus	20021	90	89	80
Pontiac	6000	4644	81	101	82
Chrysler	LeBaron GTS	1039	86	97	84
Pontiac	Grand Am	7190	86	97	84
Ford	Tempo 4WD	1556	76	112	85
Oldsmobile	Calais	4427	102	91	92
Chevrolet	Corsica	45054	115	82	94
Buick	Skyhawk	1496	111	88	97
Honda	Accord	47406	106	92	97
Mazda	626	11390	86	114	98
Chrysler	LeBaron	2740	83	120	99
Mazda	929	4280	81	130	104
Nissan	Stanza	2409	114	106	121
Toyota	Cressida	1551	101	122	123
Renault	Medallion	5034	130	101	132
Nissan	Maxima	6287	99	137	136

(See notes on page 12.)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Station Wagons/Passenger Vans		**35957**	**82**	**93**	**76**
Chevrolet	Celebrity	3754	74	90	67
Toyota	Camry	3047	74	92	68
Plymouth	Reliant	3175	76	93	70
Dodge	Aries	2957	76	95	72
Ford	Taurus	9171	80	95	76
Mercury	Sable	2207	109	75	82
Chevrolet	Cavalier	2059	94	94	88
Oldsmobile	Cutlass Ciera	1464	89	104	92
Volvo	240	1562	86	116	99
Renault	Medallion	1680	116	94	108
Sports & Specialty		**99080**	**114**	**129**	**147**
Merkur	Scorpio	1703	75	81	61
Volvo	740 4D	3154	82	90	74
Acura	Legend 2D	3256	88	93	82
Lincoln	Continental	2144	74	117	86
Volvo	740 SW	1424	92	96	88
Acura	Legend 4D	6039	95	103	98
Mercedes	190D/E	1447	98	104	102
Lincoln	Mark VII	8668	84	128	108
Cadillac	Eldorado	3224	101	115	116
Cadillac	Seville	1251	90	132	118
BMW	325i Conv.	1059	72	186	133
Chrysler	LeBaron Conv.	4295	117	115	134
Saab	9000	1193	96	149	143
Oldsmobile	Toronado	1527	119	129	152
Pontiac	Firebird	7401	143	110	157
Ford	Mustang Conv.	3899	117	135	158
BMW	500 Series	2993	100	159	158
Chevrolet	Camaro	10214	140	122	170
Ford	Mustang	23255	129	138	178
Jaguar	XJ-S	1098	99	184	181
Toyota	Supra	2831	128	199	255

(See notes on page 12.)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS			
Two-Door Models		**2196**	**95**	**97**	**92**
Buick	LeSabre	1329	100	87	87
Four-Door Models		**90572**	**78**	**90**	**69**
Chevrolet	Caprice	8064	73	77	56
Chrysler	New Yorker 5th Ave	4400	60	99	59
Mercury	Grand Marquis	14832	72	93	67
Ford	Crown Victoria	10536	79	89	70
Buick	LeSabre	11971	84	84	70
Pontiac	Bonneville	8278	78	90	70
Oldsmobile	Ninety-Eight	8100	78	96	75
Oldsmobile	Delta 88	14965	81	92	75
Buick	Electra	7770	88	95	84
Dodge	Diplomat	1137	67	126	84
Station Wagons/Passenger Vans		**99433**	**76**	**68**	**51**
Dodge	Caravan	15853	67	64	43
Chevrolet	Astro Van	12265	84	55	46
GMC	Safari Van	2619	91	52	47
Plymouth	Voyager	16270	71	68	48
Ford	Crown Victoria	1377	74	67	50
Dodge	Grand Caravan	12662	76	68	51
Plymouth	Grand Voyager	12296	76	68	52
Ford	Aerostar	21808	79	79	62
Chevrolet	Caprice	1434	96	74	71
Sports & Specialty		**60720**	**85**	**120**	**101**
Cadillac	Brougham	4747	73	101	73
Lincoln	Town Car	29961	86	105	90
Cadillac	DeVille 2D	3056	86	108	93
Cadillac	DeVille 4D	9047	79	120	95
Cadillac	Fleetwood d'Elegance	1582	81	121	98

(See notes on page 12)

Table 4 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS (Cont'd)			
Mercedes	420/560/300SEL	2012	79	131	104
BMW	735i	3021	97	159	154
Jaguar	XJ6	4165	93	170	157
Mercedes	260/300E	2292	91	184	166

NOTES FOR TABLE 4:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1,000 insured vehicle years of exposure are not summarized.

Table 5
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
All	All	5276065	100 = 10.2	100 = $ 1919	100 = $ 196
		SMALL CARS			
Two-Door Models		799096	122	102	123
Chevrolet	Chevette	12188	102	83	85
Toyota	Tercel	38849	105	87	91
Honda	Civic	30450	104	89	92
Subaru	Hatchback	2821	108	90	98
Mazda	323	9104	100	98	98
Toyota	Corolla FX	12820	100	99	99
Plymouth	Sundance	18647	116	88	103
Yugo	Yugo	19224	113	91	103
Subaru	Justy	4426	108	98	106
Plymouth	Colt	8954	113	95	107
Pontiac	1000	1570	118	91	108
Ford	Escort	88067	118	93	110
Dodge	Colt	11324	110	103	113
Subaru	GL 4WD	3208	103	110	113
Volkswagen	Fox	5032	120	96	115
Subaru	Hatchback 4WD	1603	112	103	115
Mercury	Lynx	8562	121	96	116
Dodge	Shadow	19308	134	87	117
Hyundai	Excel	34567	126	92	117
Chevrolet	Spectrum	8195	119	100	119
Plymouth	Turismo	24941	125	96	120
Dodge	Charger	27217	122	99	121
Honda	Prelude	35492	118	105	123
Nissan	Sentra	134187	119	107	127
Renault	Alliance	3412	120	106	127
Chevrolet	Sprint	16477	118	108	127
Volkswagen	Golf	8213	122	108	131
Subaru	DL/GL	3568	120	110	132
Acura	Integra	21450	117	114	132
Volkswagen	Jetta	2735	130	102	133
Isuzu	I-Mark	2418	105	127	133

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Dodge	Daytona	13807	123	110	135
Nissan	Pulsar	30444	139	97	135
Toyota	Celica	48536	138	101	139
Toyota	Corolla	10523	121	116	140
Mazda	626	11778	145	103	149
Nissan	200SX	18597	122	122	149
Subaru	XT Coupe	5701	157	98	154
Mitsubishi	Mirage	2915	146	108	157
Subaru	XT Coupe 4WD	1731	160	103	165
Volkswagen	GTI	5892	157	107	168
Saab	900	11010	142	130	185
Mitsubishi	Cordia	2420	142	138	195
Renault	GTA	2004	160	137	219
Plymouth	Conquest	6975	184	150	277
Mitsubishi	Starion	3368	204	140	286
Volkswagen	Scirocco	3896	197	157	308
Four-Door Models		**776222**	**107**	**96**	**102**
Chevrolet	Chevette	6463	96	77	74
Dodge	Omni	62269	92	85	79
Plymouth	Horizon	79291	96	87	83
Ford	Escort	39452	97	88	85
Mercury	Lynx	4458	95	91	86
Plymouth	Sundance	21523	105	82	87
Chevrolet	Nova	56329	96	91	88
Volkswagen	Golf	11483	106	88	93
Toyota	Tercel	3157	102	91	93
Dodge	Shadow	18927	111	85	94
Toyota	Corolla	52831	99	95	94
Chevrolet	Sprint	9810	109	98	107
Honda	Civic	67751	109	99	108
Mazda	323	26692	103	106	109
Chevrolet	Spectrum	20133	118	94	111
Nissan	Sentra	62995	111	103	114
Subaru	DL/GL	12676	107	106	114

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Subaru	GL 4WD	4790	109	106	115
Isuzu	I-Mark	5061	105	110	115
Renault	Alliance	4836	118	100	118
Hyundai	Excel	75650	124	95	118
Mazda	626	36682	115	104	120
Plymouth	Colt	10541	112	109	122
Acura	Integra	12630	116	107	124
Volkswagen	Fox	4990	120	105	126
Dodge	Colt	12781	119	107	127
Volkswagen	Jetta	34589	126	106	133
Saab	900	6893	118	118	139
Mitsubishi	Mirage	3997	129	110	142
Mitsubishi	Tredia	3131	136	114	154
Alfa Romeo	Milano	2569	167	158	263
Station Wagons/Passenger Vans		**138940**	**87**	**92**	**80**
Mercury	Lynx	2613	71	75	53
Honda	Civic 4WD	2970	74	87	64
Ford	Escort	27134	81	83	67
Honda	Civic	8342	73	94	69
Toyota	Tercel 4WD	3498	80	93	74
Nissan	Stanza	4514	68	112	77
Mazda	323	5590	83	94	78
Volkswagen	Fox	1433	95	83	79
Subaru	DL/GL	11197	84	96	81
Subaru	DL/GL 4WD	29468	84	98	83
Toyota	Van	7212	106	80	85
Toyota	Tercel	4362	90	98	88
Volkswagen	Vanagon	2964	131	68	89
Nissan	Sentra	12146	90	101	90
Nissan	Stanza 4WD	1146	102	94	96
Mitsubishi	Wagon	2424	132	80	106
Nissan	Van	8294	111	97	108
Toyota	Van 4WD	2484	119	99	118
Nissan	Sentra 4WD	1150	89	138	123

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
SPORTS & SPECIALTY		**180671**	**124**	**131**	**162**
Mercedes	560SL Conv.	5921	63	187	117
Porsche	911 Targa/Cabriolet	2244	52	241	125
Honda	Civic CRX	36851	124	107	133
Volkswagen	Cabriolet	7786	111	128	143
Toyota	MR2	9721	137	104	143
Toyota	Celica Conv.	1400	162	89	144
Ford	EXP	13153	132	111	146
Pontiac	Fiero	22659	148	99	147
Nissan	300ZX 2+2	4238	134	120	161
Audi	4000 Quattro	1526	123	146	179
Nissan	300ZX	11240	115	157	180
Mazda	RX-7	30456	138	132	182
Chevrolet	Corvette Conv.	4181	81	227	184
Chevrolet	Corvette	10312	80	242	193
Alfa Romeo	Spider Conv.	1295	127	165	210
Porsche	924 Coupe	3917	130	174	226
Porsche	911 Coupe	1995	72	353	253
Porsche	944 Coupe	7476	116	219	254
		MIDSIZE CARS			
Two-Door Models		**580734**	**103**	**101**	**104**
Dodge	Aries	3331	83	95	79
Buick	Century	3048	96	86	83
Oldsmobile	Cutlass	38159	81	103	84
Plymouth	Reliant	4364	88	95	84
Chevrolet	Celebrity	7386	85	100	85
Pontiac	Grand Prix	8305	93	93	86
Oldsmobile	Cutlass Ciera	12789	81	107	87
Pontiac	6000	1367	84	106	89
Buick	Somerset	21422	100	92	92
Oldsmobile	Firenza	2644	105	90	94
Ford	Tempo	32119	114	85	97
Pontiac	Grand Am	78322	95	103	98

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Mercury	Cougar	46298	96	104	100
Mercury	Topaz	6590	115	87	100
Oldsmobile	Calais	35595	108	93	100
Buick	Regal	25177	94	109	102
Honda	Accord	37951	108	101	110
Chevrolet	Monte Carlo	32986	95	116	110
Buick	Skyhawk	11015	118	94	111
Chrysler	LeBaron	27220	109	103	112
Ford	Thunderbird	52520	92	123	113
Chevrolet	Beretta	2291	119	100	119
Chevrolet	Cavalier	63865	135	91	122
Pontiac	Sunbird	24518	134	100	134
Four-Door Models		**1258664**	**93**	**96**	**90**
Plymouth	Caravelle	13511	80	83	66
Oldsmobile	Cutlass	13753	79	85	67
Ford	Tempo 4WD	3427	89	78	69
Chevrolet	Corsica	2342	94	75	70
Chrysler	LeBaron	26058	79	92	72
Dodge	600	12738	79	94	74
Buick	Century	59308	85	90	76
Chevrolet	Celebrity	80071	83	92	77
Toyota	Camry	84718	80	96	77
Plymouth	Reliant	26504	84	93	78
Oldsmobile	Cutlass Ciera	91935	79	102	80
Dodge	Lancer	9512	93	87	81
Chrysler	New Yorker	28518	82	99	81
Ford	Tempo	68255	100	82	82
Dodge	Aries	22921	84	100	83
Buick	Skyhawk	6179	95	87	83
Mercury	Topaz	21171	96	87	84
Ford	Taurus	91488	91	93	85
Pontiac	6000	38008	89	95	85
Chrysler	LeBaron GTS	15931	97	88	86
Pontiac	Sunbird	10833	94	91	86
Mercury	Sable	32638	99	91	91

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Oldsmobile	Calais	20193	100	94	94
Cadillac	Cimarron	6962	90	106	95
Oldsmobile	Firenza	3744	103	92	95
Buick	Skylark	13737	103	92	95
Pontiac	Grand Am	32366	91	105	96
Chevrolet	Cavalier	47628	121	80	97
Volvo	240	18711	91	110	99
Honda	Accord	160492	104	97	101
Toyota	Cressida	15340	108	98	106
Nissan	Stanza	52272	108	99	107
Nissan	Maxima	111174	101	119	120
Mitsubishi	Galant	6859	116	115	133
Volkswagen	Quantum	1934	138	103	143
Peugeot	505	2464	111	130	144
Audi	4000	4624	139	152	211
Station Wagons/Passenger Vans		**196184**	**82**	**91**	**75**
American	Eagle	1635	62	87	54
Toyota	Camry	15609	71	85	61
Dodge	Colt Vista 4WD	3858	63	101	63
Buick	Century	6921	77	85	66
Oldsmobile	Cutlass Ciera	10663	75	91	69
Ford	Taurus	40796	81	89	72
Chevrolet	Celebrity	21249	80	91	73
Plymouth	Reliant	10037	77	96	74
Pontiac	6000	4436	82	90	74
Buick	Skyhawk	1279	88	84	75
Chrysler	LeBaron	2262	69	109	75
Pontiac	Sunbird	1332	94	82	77
Dodge	Colt Vista	7590	88	87	77
Volvo	240	10409	78	98	77
Plymouth	Colt Vista 4WD	3212	79	99	78
Dodge	Aries	8846	77	101	78
Chevrolet	Cavalier	17208	102	79	81
Mercury	Sable	12251	88	92	81

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Plymouth	Colt Vista	6202	91	102	93
Nissan	Maxima	7681	85	115	97
Sports & Specialty		**377022**	**119**	**120**	**143**
Oldsmobile	Toronado	5386	108	79	85
Chrysler	LeBaron Conv.	2695	88	101	89
Acura	Legend 2D	4450	101	92	93
Chevrolet	Cavalier Conv.	2331	125	78	97
Acura	Legend 4D	19262	95	104	98
Austin Rov	Sterling 825	5426	112	88	99
Cadillac	Seville	6094	91	109	100
Volvo	740/760 SW	8855	103	100	103
Volvo	740/760	23232	102	108	110
Cadillac	Eldorado	7378	90	123	111
Buick	Riviera	5414	111	105	117
Pontiac	Sunbird Conv.	1567	126	94	118
Lincoln	Continental	7687	99	121	120
Lincoln	Mark VII	8296	87	141	123
Saab	9000	6046	116	116	134
Ford	Mustang Conv.	9048	114	124	142
Ford	Mustang	63489	121	119	144
Chevrolet	Camaro	59690	138	110	151
Mercedes	190D/E	11026	126	123	154
BMW	325 4D	11536	108	143	155
BMW	500 Series	8150	108	146	157
Audi	5000	9967	95	167	158
Pontiac	Firebird	40929	147	109	161
Audi	5000 Quattro 4D	1954	114	142	162
Toyota	Supra	20820	113	152	171
Merkur	XR4Ti	2366	130	134	174
Jaguar	XJ-S	1068	123	153	188
BMW	325i Conv.	3968	90	217	196
BMW	L6/M6	1218	127	177	224
BMW	325 2D	16269	126	186	234

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS			
Two-Door Models		**23688**	**89**	**94**	**84**
Ford	Crown Victoria	3006	62	90	56
Oldsmobile	Ninety-Eight	2140	82	82	67
Chevrolet	Caprice	1748	68	99	67
Mercury	Grand Marquis	2510	61	126	77
Buick	Electra	1801	89	101	89
Buick	LeSabre	7034	103	91	94
Oldsmobile	Delta 88	5450	104	92	96
Four-Door Models		**453175**	**77**	**92**	**71**
Dodge	Diplomat	11024	60	91	55
Chevrolet	Caprice	53815	73	77	57
Mercury	Grand Marquis	53917	65	88	58
Ford	Crown Victoria	34514	60	97	58
Chrysler	New Yorker 5th Ave	53318	67	99	67
Buick	Electra	31170	78	88	69
Plymouth	Gran Fury	5583	74	99	73
Buick	LeSabre	59867	86	90	78
Pontiac	Bonneville	46950	85	99	84
Oldsmobile	Delta 88	69910	91	92	84
Oldsmobile	Ninety-Eight	33108	85	100	85
Station Wagons/Passenger Vans		**319422**	**76**	**75**	**57**
GMC	Safari Van	10851	70	64	45
Chevrolet	Astro Van	48429	78	63	50
Plymouth	Voyager	70354	77	69	53
Mercury	Grand Marquis	3952	69	79	54
Dodge	Caravan	69856	75	74	55
Pontiac	Safari Wagon	4787	73	77	57
Ford	Crown Victoria	6082	72	84	60
Buick	LeSabre	1902	77	79	61
Ford	Aerostar	80062	73	84	61
Chevrolet	Caprice	13073	81	82	66
Buick	Electra	2466	86	85	73
Oldsmobile	Custom Cruiser	7189	90	91	82

(See notes on page 21.)

Table 5 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS (Cont'd)			
Sports & Specialty		**172246**	**86**	**115**	**99**
Cadillac	Brougham 4D	26368	83	96	80
Cadillac	Fleetwood/Deville	53957	85	101	85
Lincoln	Town Car	32720	87	101	88
BMW	735i	1106	91	107	97
Cadillac	DeVille 2D	15986	88	114	100
Jaguar	XJ6	6961	87	131	114
Mercedes	260/300 Series	19471	99	144	143
Mercedes	420/560SEL/300SDL	14207	90	187	168

NOTES FOR TABLE 5:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1.000 insured vehicle years of exposure are not summarized.

Table 6
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
All	All	9603198	100 = 10.1	100 = $ 1810	100 = $ 183
		SMALL CARS			
Two-Door Models		1239729	119	101	120
Toyota	Tercel	30432	93	82	77
Chevrolet	Chevette	26131	107	84	89
Yugo	Yugo	22391	107	84	90
Mercury	Lynx	31232	104	87	91
Pontiac	1000	9584	103	90	92
Ford	Escort	177770	105	88	93
Honda	Civic	65464	104	92	95
Chevrolet	Sprint	32449	112	91	102
Mazda	323	21192	101	101	102
Nissan	Sentra	75918	119	91	108
Volkswagen	Golf	15992	112	97	109
Dodge	Colt	29420	113	97	110
Chevrolet	Spectrum	24833	117	95	111
Subaru	Hatchback	12375	113	99	112
Renault	Alliance/Encore	26542	119	95	113
Isuzu	I-Mark	6048	120	96	115
Plymouth	Colt	23004	118	98	115
Subaru	GL 4WD	3911	114	101	116
Hyundai	Excel	12587	122	97	118
Subaru	Hatchback 4WD	3998	116	105	121
Subaru	DL/GL	6161	126	103	129
Honda	Prelude	70325	115	113	130
Volkswagen	Jetta	5596	128	103	131
Nissan	Pulsar	58775	121	111	135
Plymouth	Turismo	30326	131	104	136
Toyota	Corolla	34948	124	110	136
Acura	Integra	8481	121	114	138
Toyota	Celica	102602	138	100	139
Dodge	Daytona	38010	133	105	140
Mazda	626	23343	132	107	142
Mitsubishi	Mirage	12230	136	104	142

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Dodge	Charger	30555	135	106	143
Saab	900	22291	111	133	148
Chrysler	Laser	30566	135	110	149
Nissan	200SX	43644	135	115	155
Subaru	XT Coupe	14928	164	100	164
Isuzu	Impulse	10186	149	111	166
Subaru	XT Coupe 4WD	6171	162	105	170
Volkswagen	GTI	17060	158	110	174
Mitsubishi	Cordia	5271	172	123	212
Volkswagen	Scirocco	8327	150	145	217
Plymouth	Conquest	2278	158	150	236
Mitsubishi	Starion	4004	179	134	239
Dodge	Conquest	2321	175	143	249
Four-Door Models		**1177952**	**106**	**95**	**101**
Mercury	Lynx	16411	94	83	78
Toyota	Tercel	11586	89	88	78
Ford	Escort	86341	93	86	80
Chevrolet	Nova	149642	92	92	85
Plymouth	Horizon	44580	103	84	87
Chevrolet	Chevette	24680	104	86	89
Toyota	Corolla	120549	94	96	91
Dodge	Omni	38885	104	89	92
Honda	Civic	73905	103	94	97
Renault	Alliance/Encore	32194	106	94	99
Chevrolet	Sprint	26383	112	89	100
Pontiac	1000	6386	114	89	102
Volkswagen	Golf	28887	108	94	102
Isuzu	I-Mark	15561	108	97	104
Chevrolet	Spectrum	53874	115	91	105
Nissan	Stanza	13803	104	104	108
Nissan	Sentra	40702	118	93	110
Mazda	323	40759	102	109	111
Mazda	626	68933	111	103	114
Hyundai	Excel	74996	124	92	115

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Subaru	DL/GL	39108	118	97	115
Saab	900	13628	103	116	119
Dodge	Colt	24481	113	108	122
Plymouth	Colt	19477	116	105	122
Volkswagen	Jetta	80393	123	102	126
Subaru	GL 4WD	11909	124	102	126
Acura	Integra	8936	120	111	133
Mitsubishi	Tredia	10961	140	122	170
Station Wagons/Passenger Vans		**292007**	**90**	**92**	**83**
Mercury	Lynx	8756	75	84	63
Ford	Escort	65179	81	81	65
Volkswagen	Vanagon	6208	115	65	74
Mazda	GLC	1728	95	79	75
Honda	Civic	17614	79	98	78
Toyota	Tercel	14534	87	91	79
Toyota	Tercel 4WD	13632	78	102	80
Honda	Civic 4WD	6617	75	107	80
Nissan	Stanza 4WD	5912	83	97	80
Nissan	Sentra	13051	104	82	85
Nissan	Stanza	40377	76	113	85
Toyota	Van	22691	108	86	93
Subaru	DL/GL	27426	102	96	98
Renault	Sportwagon	1342	128	80	101
Subaru	DL/GL 4WD	46941	111	94	105
SPORTS & SPECIALTY		**381982**	**127**	**129**	**163**
Honda	Civic CRX	61198	122	108	131
Ford	EXP	24643	125	110	137
Volkswagen	Cabriolet	10500	117	118	138
Renault	Alliance Conv.	1361	118	117	138
Pontiac	Fiero	72770	142	101	144
Mercedes	560SL Conv.	8141	66	249	163
Nissan	300ZX 2+2	13947	117	143	167

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		SMALL CARS (Cont'd)			
Toyota	MR2	30578	147	114	168
Audi	4000 Quattro	3930	123	138	169
Nissan	300ZX	42087	122	145	177
Subaru	XT Coupe DL	2572	170	105	178
Mazda	RX-7	49494	141	127	179
Alfa Romeo	Spider Conv.	4197	120	151	181
Chevrolet	Corvette	24899	85	233	198
Porsche	911 Coupe	3273	78	279	218
Chevrolet	Corvette Conv.	4669	89	291	258
Porsche	944 Coupe	16973	128	204	261
Porsche	928 Coupe	1922	114	236	269
Porsche	911 Targa/Cabriolet	3040	95	314	299
		MIDSIZE CARS			
Two-Door Models		**1344558**	**103**	**98**	**101**
Plymouth	Reliant	13763	92	86	79
Chevrolet	Celebrity	24425	84	94	79
Oldsmobile	Cutlass	128606	82	98	80
Dodge	600	9800	83	98	81
Buick	Century	11428	89	91	81
Buick	Regal	74793	88	97	85
Chrysler	LeBaron	22759	89	99	88
Oldsmobile	Cutlass Ciera	34813	87	101	88
Dodge	Aries	11843	97	91	89
Oldsmobile	Firenza	14322	106	87	92
Pontiac	6000	7289	100	94	94
Mercury	Topaz	10029	109	87	95
Ford	Tempo	54370	110	87	95
Pontiac	Grand Prix	33566	97	98	96
Buick	Somerset	63822	105	93	98
Oldsmobile	Calais	74028	111	94	104
Buick	Skyhawk	45621	112	94	105
Chevrolet	Monte Carlo	91436	99	106	105
Pontiac	Grand Am	114664	105	103	108

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Honda	Accord	60750	107	101	108
Ford	Thunderbird	135474	102	109	111
Mercury	Cougar	112095	105	107	112
Chevrolet	Cavalier	142565	127	92	116
Pontiac	Sunbird	49134	125	96	120
Audi	GT Coupe	3163	143	176	251
Four-Door Models		**2432019**	**93**	**95**	**88**
American	Eagle	1019	58	98	57
Oldsmobile	Cutlass	47828	72	93	66
Ford	LTD	39244	77	92	71
Plymouth	Caravelle	22369	81	88	71
Chevrolet	Celebrity	191471	83	89	73
Pontiac	Bonneville	32545	80	94	75
Dodge	600	20052	87	88	76
Mercury	Marquis	18745	83	93	77
Oldsmobile	Cutlass Ciera	218240	79	99	78
Toyota	Camry	160518	86	91	78
Dodge	Aries	35437	82	96	78
Buick	Skyhawk	19486	92	87	80
Plymouth	Reliant	40543	84	96	80
Chrysler	LeBaron	35568	83	97	81
Ford	Tempo	130487	99	83	82
Buick	Century	178478	87	94	82
Oldsmobile	Firenza	13462	95	88	83
Mercury	Topaz	30588	98	86	84
Chrysler	New Yorker	44353	85	99	84
Ford	Taurus	118074	94	91	85
Pontiac	6000	124751	94	95	89
Mercury	Sable	46325	98	92	90
Chevrolet	Cavalier	121863	109	84	91
Buick	Skylark	43694	100	92	92
Pontiac	Sunbird	33807	104	90	93
Chrysler	LeBaron GTS	61816	101	94	95
Dodge	Lancer	41748	97	99	96

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Oldsmobile	Calais	47559	109	91	99
Pontiac	Grand Am	68947	99	102	100
Cadillac	Cimarron	21392	99	103	102
Volvo	240	35203	95	110	104
Honda	Accord	231430	106	99	105
Toyota	Cressida	40102	101	107	108
Nissan	Maxima	68246	106	123	130
Mitsubishi	Galant	17018	125	113	141
Volkswagen	Quantum	7639	134	110	147
Peugeot	505	8034	116	129	149
Audi	4000	13939	129	135	174
Station Wagons/Passenger Vans		**359139**	**84**	**91**	**76**
Ford	LTD	9247	71	73	52
American	Eagle	5179	64	100	64
Chevrolet	Celebrity	58110	77	88	68
Pontiac	6000	13427	82	85	69
Mercury	Marquis	2601	70	103	72
Ford	Taurus	41229	86	85	73
Plymouth	Reliant	20010	78	94	74
Oldsmobile	Cutlass Ciera	26398	83	90	74
Buick	Century	19887	79	95	75
Dodge	Aries	17514	77	99	76
Buick	Skyhawk	4653	84	91	77
Chrysler	LeBaron	5170	72	106	77
Mercury	Sable	16013	88	88	77
Plymouth	Colt Vista 4WD	5463	74	108	79
Pontiac	Sunbird	4181	92	87	80
Oldsmobile	Firenza	3638	86	93	81
Chevrolet	Cavalier	42896	99	83	81
Dodge	Colt Vista 4WD	6277	80	102	81
Volvo	240	23429	87	100	86
Nissan	Maxima	6048	87	103	89
Dodge	Colt Vista	12124	94	101	94
Plymouth	Colt Vista	10426	92	112	103
Toyota	Cressida	3721	96	120	114

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		MIDSIZE CARS (Cont'd)			
Sports & Specialty		**781689**	**119**	**121**	**144**
Chrysler	LeBaron Conv.	16484	93	103	96
Acura	Legend	16654	95	105	100
Dodge	600 Conv.	12215	101	101	101
Lincoln	Continental	13527	89	115	103
Volvo	740/760 SW	14478	96	107	103
Cadillac	Eldorado	14861	96	109	105
Lincoln	Mark VII	15175	85	123	105
Cadillac	Seville	11786	97	109	106
Oldsmobile	Toronado	10095	110	100	110
Chevrolet	Cavalier Conv.	3998	120	94	113
Volvo	740/760	36960	101	114	115
Mercury	Capri	11535	102	116	119
Buick	Riviera	13456	116	106	122
Pontiac	Sunbird Conv.	1972	120	104	125
Ford	Mustang Conv.	18632	103	127	130
Ford	Mustang	156540	115	114	130
Toyota	Supra	18354	109	129	140
Chevrolet	Camaro	152106	138	112	155
Audi	5000	39475	111	144	159
Merkur	XR4Ti	8741	109	147	160
Jaguar	XJ-S	3309	93	174	162
Mercedes	190D/E	17911	117	141	164
BMW	500 Series	17501	101	164	165
Pontiac	Firebird	89269	147	115	169
Toyota	Celica Supra	5457	113	150	169
BMW	635CSi	1546	82	209	171
Saab	9000	7801	122	144	175
Audi	5000 SW	1455	139	133	185
BMW	325e 4D	18861	119	171	204
BMW	325e 2D	28632	126	174	219
Audi	5000 Quattro 4D	2144	124	227	282

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS			
Two-Door Models		**73064**	**88**	**92**	**81**
Ford	Crown Victoria	5550	61	90	55
Chevrolet	Caprice	8171	75	77	58
Mercury	Grand Marquis	4723	65	90	58
Oldsmobile	Ninety-Eight	4950	88	91	80
Buick	Electra	3938	93	92	86
Oldsmobile	Delta 88	28480	94	95	89
Buick	LeSabre	17252	96	94	90
Four-Door Models		**741136**	**78**	**91**	**71**
Pontiac	Parisienne	48036	68	81	55
Mercury	Grand Marquis	71543	68	87	59
Ford	Crown Victoria	53163	66	91	60
Chevrolet	Caprice	111179	80	79	63
Dodge	Diplomat	9452	70	100	70
Chrysler	New Yorker 5th Ave	65209	73	102	75
Plymouth	Gran Fury	5451	76	100	76
Oldsmobile	Ninety-Eight	87111	82	94	77
Oldsmobile	Delta 88	151423	84	93	78
Buick	LeSabre	55190	86	91	78
Buick	Electra	83373	82	97	79
Station Wagons/Passenger Vans		**473632**	**77**	**81**	**62**
Pontiac	Parisienne	9718	73	70	51
Plymouth	Voyager	98974	73	77	56
Dodge	Caravan	100902	72	79	57
Chevrolet	Astro Van	74964	87	68	59
Chevrolet	Caprice	27637	79	81	64
Oldsmobile	Custom Cruiser	15484	76	86	66
Ford	Crown Victoria	12694	71	93	66
GMC	Safari Van	15598	88	75	66
Ford	Aerostar	97039	75	97	72
Buick	LeSabre	5490	81	92	74

(See notes on page 30.)

Table 6 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Passenger Cars

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		LARGE CARS (Cont'd)			
Buick	Electra	6789	82	92	75
Mercury	Grand Marquis	6681	79	106	83
Peugeot	505	1664	91	141	128
Sports & Specialty		**306289**	**89**	**114**	**101**
Cadillac	Brougham 4D	34917	83	101	84
Cadillac	DeVille 4D	102178	86	103	89
Lincoln	Town Car	78134	93	99	92
Cadillac	DeVille 2D	32147	88	110	97
Jaguar	XJ6	13738	87	157	136
Mercedes	300E	19281	101	142	143
Mercedes	420/560SEL/300SDL	19737	93	165	153
Mercedes	560SEC	1289	81	301	244
BMW	735i	3394	99	267	264

NOTES FOR TABLE 6:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1,000 insured vehicle years of exposure are not summarized.

Vans, Pickups, and Utility Vehicles

This section presents the results for 1986, 1987, and 1988 model year vans, pickups, and utility vehicles insured under noncommercial collision coverages. The results for the 1988 models are based on a total exposure of approximately 418,000 insured vehicle years, those for 1987 models on approximately 1.5 million insured vehicle years, and those for 1986 models on over 2.6 million insured vehicle years. Results for individual vehicle series with less than 1,000 insured vehicles years of exposure are not given.

The results for the pickups are given separately for small and standard pickups. Small pickups are defined as those with curb weight of less than 3,500 pounds. The results for utility vehicles are given separately for three size classes: small utility vehicles with wheelbases less than 100 inches, intermediate utility vehicles with wheelbases in the range of 100-120 inches, and large utility vehicles with wheelbases exceeding 120 inches.

Figure 1 presents relative average loss payments per insured vehicle year for 1986, 1987, and 1988 model year vans, pickups, and utility vehicles. These results are presented in relative terms with the value 100 corresponding to the result for *all passenger cars* combined for each model year. Thus, the value 57 for the 1988 model year vans indicates an average loss payment per insured vehicle year that was 57 percent of the $204 for all 1988 passenger vehicles.

Vans and large utility vehicles had the lowest average loss payments per insured vehicle year, and small pickups and small utility vehicles had the highest. In particular, the 1988 small pickups and 1986 small utility vehicles had the highest collision losses. For the 1986 model year, the Ford Bronco II 4x4 and Jeep CJ-7 accounted for more than 80 percent of the small utility vehicle exposure; the Jeep CJ-7 was discontinued beginning with the 1987 model year.

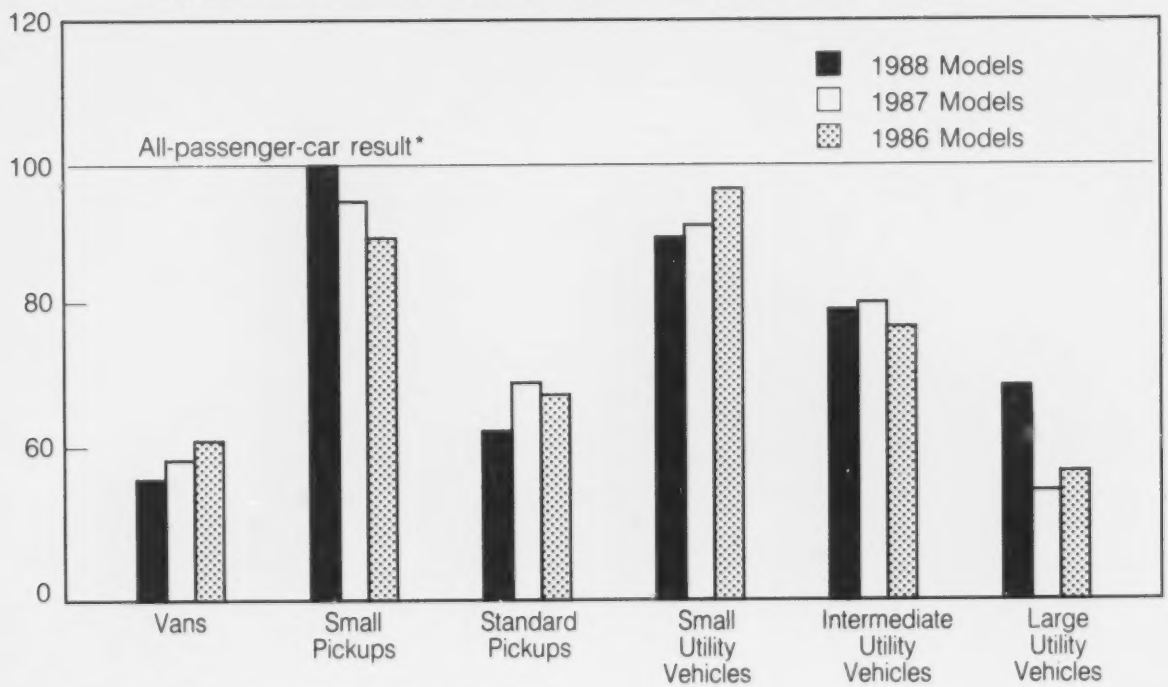
Tables 7, 8, and 9 present detailed collision coverage results for all 1986, 1987, and 1988 model year vans, pickups, and utility vehicles with at least 1,000 insured vehicle years of exposure. The values displayed are total exposure in insured vehicle years and relative values for claim frequency, average loss payment per claim, and average loss payment per insured vehicle year. The relative numbers are based on the value 100, which corresponds to the result for *all passenger cars* combined in each loss category for each model year.

Relationships between vehicle size and collision losses are apparent from these results. For pickups and utility vehicles, the smaller vehicles displayed larger average loss payments per insured vehicle year than larger vehicles. For each of the three model years, small, intermediate, and large utility vehicles had similar claim frequencies, but the average loss payments per claim decreased as vehicle size increased. For 1987 and 1986 model-year pickups, the average loss payments per claim were similar for the two size classes, but the small pickups had substantially higher claim frequencies.

1988 Models During Their First Year

Table 7 (page 33) presents detailed collision coverage results for 1988 model year vans, pickups, and utility vehicles during their first year.

Figure 1 Collision Coverages—Relative Average Loss Payment Per Insured Vehicle Year 1986-88 Model Year Vans, Pickups, and Utility Vehicles



*All-passenger-car results = $204 for 1988, $196 for 1987, $183 for 1986.

The Chevrolet 10 Extended Cab had the lowest relative average loss payment per insured vehicle year; its result was less than half the result for all 1988 passenger cars. The Ford F-150 Super Cab 4x4, GMC 1500 Series 4x4, Chevrolet Suburban (1/2 T) 4x4, Ford E-250 Econoline, and Ford E-150 Econoline also had average loss payments per insured vehicle year that were less than half the 1988 all-passenger-car result. The Ford Ranger 4x4 and Toyota Standard Bed 4x4, both small pickups, had the highest average loss payments per insured vehicle year. The Jeep Cherokee had the lowest claim frequency and the Toyota Xtra Cab Long Bed had the highest. The Ford E-250 Econoline had the lowest average loss payment per claim (less than $900), and the Jeep Grand Wagoneer had by far the highest average loss payment per claim (nearly $4,000). The results for all three collision loss measures for the Ford Ranger, Ford Ranger 4x4, Dodge Ram 50, Toyota Xtra Cab 4x4, and Toyota Standard Bed 4x4 — all small pickups — and the Toyota 4Runner and Nissan Pathfinder — intermediate utility vehicles — exceeded the 1988 all-passenger-car averages.

1987 Models During Their First Two Years

Table 8 (page 36) presents detailed collision coverage results for 1987 model year vans, pickups, and utility vehicles. The results displayed are the combined results for the first two years of the 1987 models.

The Ford F-250 Super Cab standard pickup had the lowest average loss payment per insured vehicle year. The GMC Safari Cargo Van, Chevrolet Chevy Van (1/2 T), Chevrolet Sportvan (3/4 T), Chevrolet 20 Series 4x4 standard pickup, GMC 2500 Series standard pickup, and both the Chevrolet Suburban (1/2 T) and Suburban (1/2 T) 4x4 also had average loss payments per insured vehicle year that were less than half the 1987 all-passenger-car value. The Toyota 4Runner Wagon — an intermediate utility vehicle — had by far the highest average loss payment per insured vehicle year. The Chevrolet 20 Series 4x4 had the lowest claim frequency, and the Toyota 4Runner Wagon had the highest. The GMC Safari Cargo Van had the lowest average loss payment per claim. The Tyota 4Runner Wagon had the highest average loss payment per claim. Toyota products accounted for four of the six vehicles that exceeded the 1987 passenger car results in all three collision loss categories.

1986 Models During Their First Three Years

Table 9 (page 40) presents detailed collision coverage results for 1986 model year vans, pickups, and utility vehicles. The results displayed are the ocmbined results for the first three years of the 1986 models.

The Chevrolet 20 Crew Cab standard pickup had the lowest average loss payment per insured vehicle year. Three vans and one large utility vehicle also had a result that was less than half the 1988 all-passenger-car result: the Ford E-250 Club Wagon, the Dodge B250, and Ford E-150 Club Wagon vans, along with the GMC Suburban 4x4 utility vehicle. As with the 1987 model year results, the Toyota 4Runner Wagon had the highest average loss payment per insured vehicle year. The Toyota Land Cruiser, an intermediate utility vehicle, had the highest. The Chevrolet 20 Crew Cab had the lowest average loss payment per claim and the Jeep CJ-7 the highest.

The three collision loss results for the Toyota Xtra Cab 4x4, the Mitsubishi, Toyota, and Nissan Standard Bed 4x4 small pickups, and the Toyota 4Runner standard pickup and wagon equalled or exceeded the 1986 all-passenger-car averages.

Table 7
Insurance Losses, Collision Coverages
1988 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		VANS			
All Vans		**31796**	**95**	**60**	**57**
Ford	E-250 Econoline (3/4T)	1140	108	44	47
Ford	E-150 Econoline (1/2-3/4T)	7640	92	53	49
GMC	Vandura (3/4T)	1563	107	51	54
Chevrolet	Chevy Van (3/4T)	5646	105	54	57
Dodge	B250 Cargo Van	2655	72	88	63
Chevrolet	Astro Cargo Van	5279	98	67	66
Ford	E-150 Club Wagon (1/2-3/4)	1202	74	92	68
		PICKUPS			
Small Pickups		**138722**	**99**	**101**	**100**
Dodge	Dakota (1/2T)	7622	66	80	52
Jeep	Comanche 4x4	1040	73	75	55
Dodge	D150 (1/2T)	4314	75	100	76
Mazda	Cab Plus	2410	100	77	77
Jeep	Comanche	3427	96	80	77
Chevrolet	S10 Extended Cab	1572	75	105	79
Dodge	Ram50 Extended Cab	1322	82	97	80
Ford	Ranger Super Cab	7513	99	81	81
GMC	S15	3497	96	89	85
Chevrolet	T10 Extended Cab 4x4	1663	87	104	90
Chevrolet	T10 4x4	2169	76	121	92
Chevrolet	S10	17698	95	98	93
Mitsubishi	Standard Bed	4188	99	95	94
Mazda	Standard Bed	7636	110	93	102
Toyota	Xtra Cab Long Bed	1022	141	75	105
Ford	Ranger Super Cab 4x4	4402	88	123	108
Ford	Ranger	24055	103	106	109
Toyota	Standard Bed	9326	119	93	111
Dodge	Ram50	3151	112	101	113
Nissan	Standard Bed	4018	124	92	115
Toyota	Xtra Cab 4x4	3055	111	105	117
Toyota	Standard Bed 4x4	7492	117	130	152
Ford	Ranger 4x4	4500	111	140	155

(See notes on page 35.)

Table 7 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		PICKUPS (Cont'd)			
Standard Pickups		**135091**	**70**	**88**	**62**
Chevrolet	10 Extended Cab (1/2T)	2880	76	57	43
Ford	F-150 Super Cab 4x4	1870	68	66	44
GMC	1500 Series (1/2T) 4x4	3785	61	76	46
Chevrolet	10 Series (1/2T) 4x4	13780	60	86	51
Ford	F-250 (3/4T)	3146	68	77	52
GMC	2500 Series (3/4T)	1101	69	80	55
Chevrolet	20 Series (3/4T) 4x4	4809	69	80	56
Dodge	Dakota (1/2T) 4x4	3405	58	98	56
Ford	F-150 (1/2-3/4T) 4x4	12511	66	90	59
Ford	F-150 (1/2-3/4T)	21252	69	89	61
Ford	F-150 Super Cab	4853	74	83	62
Chevrolet	20 Series (3/4T)	3542	86	73	63
GMC	1500 Series (1/2T)	8675	66	97	64
Chevrolet	10 Series (1/2T)	31307	73	91	66
Ford	F-250 (3/4T) 4x4	5066	71	99	70
Ford	F-250 Super Cab	1881	87	81	70
GMC	2500 Series (3/4T) 4x4	1445	85	87	74
Ford	F-250 Super Cab 4x4	1480	73	103	75
Dodge	W150 (1/2T) 4x4	1679	74	112	84
Toyota	4Runner	1468	125	92	115
		UTILITY VEHICLES			
Small Utility Vehicles		**36610**	**80**	**110**	**88**
Mitsubishi	Montero	1049	79	88	69
Jeep	Wrangler	5727	70	119	83
Suzuki	Samurai	8905	86	97	83
Ford	Bronco II 4x4	13586	78	115	90
Ford	Bronco II	5165	87	130	113
Dodge	Raider	1301	82	141	116

(See notes on page 35.)

Table 7 (Cont'd)
Insurance Losses, Collision Coverages
1988 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		UTILITY VEHICLES (Cont'd)			
Intermediate Utility Vehicles		**67570**	**75**	**107**	**80**
Ford	Bronco	7154	62	100	62
Chevrolet	K10 Blazer (1/2T)	2862	72	96	69
Dodge	Ramcharger	1085	76	91	69
Jeep	Cherokee 4x4	19165	69	104	71
Jeep	Wagoneer	1283	61	123	75
Chevrolet	S10 Blazer	5090	75	103	77
Jeep	Cherokee	2865	56	138	77
GMC	T15 Jimmy 4x4	2893	80	97	78
Chevrolet	T10 Blazer 4x4	11033	83	102	85
Isuzu	Trooper II 4x4	3929	88	105	92
Dodge	Ramcharger 4x4	1158	67	139	93
GMC	S15 Jimmy	1512	76	124	94
Toyota	4Runner Wagon	2072	106	102	109
Nissan	Pathfinder	1965	109	105	114
Jeep	Grand Wagoneer	1609	76	196	148
Large Utility Vehicles		**8295**	**78**	**87**	**68**
Chevrolet	Suburban (1/2T) 4x4	2106	74	63	46
Chevrolet	Suburban (1/2T)	2861	79	66	53

NOTES FOR TABLE 7:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1,000 insured vehicle years of exposure are not summarized.

Table 8
Insurance Losses, Collision Coverages
1987 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		VANS			
All Vans		**157449**	**83**	**71**	**59**
GMC	Safari Cargo Van	3639	93	48	45
Chevrolet	Chevy Van (1/2T)	2564	76	62	47
Chevrolet	Sportvan (3/4T)	1986	76	62	47
Dodge	B150 (1/2T)	3645	64	78	50
Chevrolet	Astro Cargo Van	18317	83	61	51
Ford	E-150 Econoline (1/2-3/4T)	36157	85	61	52
Dodge	B150 Cargo Van	5672	63	86	54
Chevrolet	Chevy Van (3/4T)	27578	83	67	55
Dodge	B250 Cargo Van	17047	72	81	59
Ford	E-250 Econoline (3/4T)	2966	83	74	61
Toyota	Cargo Van 4x4	1033	83	74	62
Ford	E-150 Club Wagon (1/2-3/4T)	4368	80	78	62
Dodge	B250 (3/4T)	4045	64	98	63
Ford	Aerostar Cargo Van	4844	69	92	63
GMC	Vandura (3/4T)	7441	100	66	66
Dodge	Mini Ram	3218	70	99	69
Volkswagen	Vanagon Camper	1747	119	69	82
Toyota	Cargo Van	8501	102	94	96
		PICKUPS			
Small Pickups		**575740**	**96**	**98**	**94**
Jeep	Comanche	9155	83	74	61
GMC	T15 4x4	4095	76	93	71
Jeep	Comanche Long Bed	1246	94	77	73
Mazda	Long Bed	12098	94	78	73
Ford	Ranger Super Cab	22352	90	81	73
Jeep	Comanche Long Bed 4x4	2101	80	93	75
Mazda	Cab Plus	27901	95	79	75
Mitsubishi	Standard Bed 4x4	1590	97	78	76
Isuzu	Long Cab (1/2T)	1232	92	82	76
GMC	S15	13664	86	89	76
Jeep	Comanche 4x4	2864	77	101	78

(See notes on page 39.)

Table 8 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		PICKUPS (Cont'd)			
Isuzu	Long Bed	1373	87	92	80
Dodge	Ram50 Long Bed 4x4	2350	78	106	83
Chevrolet	T10 4x4	17597	79	105	83
Isuzu	Standard Bed	10720	96	87	84
Chevrolet	S10	64223	90	94	84
Dodge	Ram50 Long Bed	8393	94	92	86
Mazda	Standard Bed	49112	99	88	87
Ford	Ranger	69158	87	100	88
Nissan	King Cab 4x4	6063	90	101	90
Nissan	King Cab	10388	97	97	95
Toyota	Long Bed (1/2T) 4x4	3359	90	106	96
Dodge	Ram50	18385	98	100	99
Nissan	Standard Bed	48580	102	99	101
Ford	Ranger Super Cab 4x4	15055	93	109	101
Toyota	Xtra Cab Long Bed	8052	114	90	103
Mitsubishi	Standard Bed	13104	114	90	103
Toyota	Xtra Cab 4x4	14254	99	113	113
Toyota	Standard Bed	46133	114	100	114
Toyota	Long Bed (1/2T)	8816	123	98	121
Ford	Ranger 4x4	19983	92	132	122
Dodge	Ram50 4x4	5361	103	119	123
Nissan	Standard Bed 4x4	4763	102	122	125
Toyota	Standard Bed 4x4	28172	109	129	140
Standard Pickups		**328358**	**70**	**97**	**69**
Ford	F-250 Super Cab	4758	63	63	40
Chevrolet	20 Series (3/4T) 4x4	5765	58	76	44
GMC	2500 Series (3/4T)	1431	77	61	47
Ford	F-150 Super Cab	11836	70	74	52
Ford	F-250 Super Cab 4x4	3745	65	80	52
Chevrolet	El Camino	5455	69	85	59
Chevrolet	20 Series (3/4T)	4859	60	100	60
Dodge	Dakota (1/2T)	43071	68	90	61
Ford	F-250 (3/4T)	8248	59	103	61
Ford	F-150 (1/2-3/4T)	57022	67	92	62

(See notes on page 39.)

Table 8 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		PICKUPS (Cont'd)			
GMC	1500 Series (1/2T)	10648	69	93	64
Ford	F-150 (1/2-3/4T) 4x4	27260	65	100	65
Chevrolet	10 Series (1/2T) 4x4	21361	68	97	66
Ford	F-250 (3/4T) 4x4	10557	65	104	68
Dodge	D150 (1/2T)	20341	75	92	70
GMC	1500 Series (1/2T) 4x4	5203	65	107	70
Chevrolet	10 Series (1/2T)	42101	68	104	71
GMC	2500 Series (3/4T) 4x4	1792	60	117	71
Dodge	Dakota (1/2T) 4x4	11564	68	105	71
Dodge	D250 (3/4T)	1393	74	105	78
Ford	F-150 Super Cab 4x4	2225	80	97	78
Dodge	W150 (1/2T) 4x4	7660	76	111	84
Dodge	W250 (3/4T) 4x4	1822	89	120	107
Toyota	4Runner	16894	124	111	138
		UTILITY VEHICLES			
Small Utility Vehicles		**132383**	**79**	**114**	**90**
Jeep	Wrangler	20927	64	108	69
Suzuki	Samurai Van	7908	77	106	81
Suzuki	Samurai	29528	87	96	84
Mitsubishi	Montero	5904	73	119	87
Dodge	Raider	11191	73	123	89
Ford	Bronco II 4x4	44163	82	121	99
Ford	Bronco II	12762	83	131	108
Intermediate Utility Vehicles		**238873**	**77**	**106**	**81**
GMC	Jimmy (1/2T)	3348	60	96	57
Jeep	Cherokee	6284	63	99	62
Ford	Bronco	17269	68	100	68
Jeep	Wagoneer	5977	65	107	70
Chevrolet	K10 Blazer (1/2T)	12232	67	107	72
Chevrolet	S10 Blazer	25516	79	93	74
Jeep	Cherokee 4x4	45827	74	102	75

(See notes on page 39.)

Table 8 (Cont'd)
Insurance Losses, Collision Coverages
1987 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		UTILITY VEHICLES (Cont'd)			
Dodge	Ramcharger	4791	66	114	76
GMC	T15 Jimmy 4x4	11935	77	101	78
GMC	S15 Jimmy	5365	68	116	79
Dodge	Ramcharger 4x4	6015	76	105	80
Chevrolet	T10 Blazer 4x4	52921	79	102	81
Jeep	Grand Wagoneer	5772	71	114	81
Isuzu	Trooper II 4x4	12195	84	111	94
Toyota	Land Cruiser	2284	79	134	106
Nissan	Pathfinder	18969	97	128	124
Toyota	4Runner Wagon	1674	134	163	218
Large Utility Vehicles		**27764**	**75**	**74**	**55**
Chevrolet	Suburban (1/2T) 4x4	5447	75	59	44
Chevrolet	Suburban (1/2T)	10524	76	64	49
GMC	Suburban (1/2T)	3539	75	70	53
GMC	Suburban (1/2T) 4x4	2240	71	87	62
Chevrolet	Suburban (3/4T)	2785	75	102	77
Chevrolet	Suburban (3/4T) 4x4	1595	97	107	104

NOTES FOR TABLE 8:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1,000 insured vehicle years of exposure are not summarized.

Table 9
Insurance Losses, Collision Coverages
1986 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		VANS			
All Vans		**310889**	**81**	**75**	**61**
Ford	E-250 Club Wagon (3/4T)	1439	59	59	35
Dodge	B250 (3/4T)	8453	61	69	43
Ford	E-150 Club Wagon (1/2-3/4T)	8601	73	63	46
Dodge	B150 (1/2T)	7529	62	81	50
Chevrolet	Sportvan (3/4T)	10469	74	70	51
Ford	E-150 Econoline (1/2-3/4T)	69565	81	64	52
GMC	Rally Wagon (3/4T)	1924	60	87	52
Chevrolet	Chevy Van (3/4T)	52458	80	68	55
Chevrolet	Chevy Van (1/2T)	8301	75	77	58
Dodge	B250 Cargo Van	25861	70	83	58
GMC	Vandura (3/4T)	14483	87	68	59
Ford	E-250 Econoline (3/4T)	4744	74	80	60
Dodge	B150 Cargo Van	9854	69	90	63
Chevrolet	Astro Cargo Van	28561	94	74	70
GMC	Vandura (1/2T)	1072	104	67	70
Volkswagen	Vanagon Camper	2544	109	66	71
GMC	Safari Cargo Van	6399	100	71	72
Dodge	Mini Ram	5186	83	91	75
Ford	Aerostar Cargo Van	19609	79	99	78
Toyota	Cargo Van	22894	103	91	93
		PICKUPS			
Small Pickups		**1036915**	**92**	**96**	**88**
GMC	T15 4x4	5666	72	81	58
Ford	Ranger Super Cab	37240	81	79	64
Jeep	Comanche Long Bed	14917	88	73	64
Chevrolet	T10 4x4	24728	74	94	69
Mazda	Cab Plus	26816	88	80	70
Isuzu	Long Bed	9143	82	88	72
Mazda	Long Bed	32768	90	81	73
Chevrolet	S10	91302	81	91	74
Isuzu	Standard Bed	38048	85	88	75

(See notes on page 43.)

Table 9 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		PICKUPS (Cont'd)			
GMC	S15	17972	82	92	75
Isuzu	Long Cab (1/2T) 4x4	1573	89	87	78
Ford	Ranger	115185	83	98	81
Jeep	Comanche Long Bed 4x4	15487	86	95	82
Mazda	Standard Bed	85876	93	90	84
Ford	Ranger Super Cab 4x4	18347	84	101	85
Toyota	Xtra Cab Long Bed	20210	100	86	86
Toyota	Long Bed (1/2T)	26134	98	91	89
Isuzu	Long Cab (1/2T)	6448	102	89	90
Nissan	Standard Bed	68993	97	93	91
Isuzu	Standard Bed 4x4	3936	90	102	91
Nissan	Long Bed	7999	94	98	93
Nissan	King Cab	27763	96	97	93
Dodge	Ram50	46851	102	93	95
Nissan	Long Bed 4x4	2615	99	97	96
Toyota	Standard Bed	84149	107	93	100
Toyota	Xtra Cab	8858	106	95	100
Toyota	Long Bed (1/2T) 4x4	10804	91	111	101
Dodge	Ram50 4x4	11784	95	106	101
Nissan	King Cab 4x4	21993	97	106	103
Ford	Ranger 4x4	35179	86	123	106
Mitsubishi	Standard Bed	19240	118	92	108
Subaru	Brat	2879	117	92	108
Toyota	Xtra Cab 4x4	28943	100	111	112
Mitsubishi	Standard Bed 4x4	2464	104	110	115
Toyota	Standard Bed 4x4	53898	102	121	123
Nissan	Standard Bed 4x4	10130	107	118	127
Standard Pickups		**692199**	**70**	**96**	**67**
Chevrolet	20 Crew Cab (3/4T)	1001	70	48	33
GMC	2500 Series (3/4T)	4509	60	85	51
Ford	F-150 Super Cab	28276	70	73	52
Ford	F-250 Super Cab 4x4	10581	68	77	53
Chevrolet	20 Series (3/4T) 4x4	14271	64	85	54
Chevrolet	20 Series (3/4T)	14760	61	92	56

(See notes on page 43.)

Table 9 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		PICKUPS (Cont'd)			
Ford	F-250 Super Cab	13861	69	83	57
Ford	F-150 (1/2-3/4T)	159776	67	91	61
Ford	F-250 (3/4T)	25702	66	98	64
Chevrolet	10 Series (1/2T) 4x4	47277	65	99	65
Chevrolet	10 Series (1/2T)	119925	70	94	66
GMC	1500 Series (1/2T) 4x4	11177	66	100	66
GMC	Caballero	1400	68	99	68
GMC	1500 Series (1/2T)	30148	72	95	68
Ford	F-150 (1/2-3/4T) 4x4	65499	66	104	68
GMC	2500 Series (3/4T) 4x4	4575	63	109	69
Dodge	D150 (1/2T)	41531	72	96	69
Chevrolet	El Camino	12920	67	103	70
Dodge	D250 (3/4T)	5094	76	95	72
Ford	F-250 (3/4T) 4x4	31992	67	107	72
Ford	F-150 Super Cab 4x4	4771	77	107	83
Dodge	W150 (1/2T) 4x4	14944	82	116	95
Dodge	W250 (3/4T) 4x4	4176	86	118	101
Toyota	4Runner	22923	110	111	122
		UTILITY VEHICLES			
Small Utility Vehicles		**139731**	**77**	**125**	**97**
Suzuki	Samurai Van	4948	76	97	73
Suzuki	Samurai	16339	88	96	85
Mitsubishi	Montero	3889	85	112	95
Ford	Bronco II 4x4	93717	77	129	99
Jeep	CJ-7	20779	70	145	101
Intermediate Utility Vehicles		**396943**	**77**	**101**	**77**
Toyota	Land Cruiser	1601	52	98	51
Jeep	Cherokee	11746	68	88	60
GMC	T15 Jimmy 4x4	16296	77	87	68
GMC	S15 Jimmy	7614	75	95	71
Ford	Bronco	42906	70	103	72

(See notes on page 43.)

Table 9 (Cont'd)
Insurance Losses, Collision Coverages
1986 Models - Vans, Pickups, and Utility Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		UTILITY VEHICLES (Cont'd)			
Dodge	Ramcharger	4760	77	93	72
Chevrolet	T10 Blazer 4x4	75044	77	94	73
GMC	Jimmy (1/2T)	5929	66	114	76
Chevrolet	S10 Blazer	33507	78	99	77
Isuzu	Trooper II 4x4	53369	85	92	78
Jeep	Cherokee 4x4	83506	74	106	79
Chevrolet	K10 Blazer (1/2T)	26779	69	116	81
Jeep	Wagoneer	9747	78	117	91
Dodge	Ramcharger 4x4	6515	80	116	92
Jeep	Grand Wagoneer	10545	80	120	96
Toyota	4Runner Wagon	7080	129	107	138
Large Utility Vehicles		**51552**	**73**	**80**	**58**
GMC	Suburban (1/2T) 4x4	3008	74	63	46
GMC	Suburban (1/2T)	5928	72	77	55
Chevrolet	Suburban (1/2T)	20559	74	74	55
GMC	Suburban (3/4T)	1978	74	78	57
Chevrolet	Suburban (1/2T) 4x4	9703	73	80	58
Chevrolet	Suburban (3/4T) 4x4	3119	74	80	59
Chevrolet	Suburban (3/4T)	6130	73	108	79
GMC	Suburban (3/4T) 4x4	1129	84	105	88

NOTES FOR TABLE 9:

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
< $150	5%	50%
≥ $150	5%	40%

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year.
Series with less than 1,000 insured vehicle years of exposure are not summarized.

Appendix A-1
1986-88 Vehicle Series Designations

Passenger Cars

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Acura	Integra	2Dr, 4Dr	S	S	S
	Legend*	2Dr[3], 4Dr	M	M	M
Alfa Romeo	GTV6*	2Dr	S		
	Milano	4Dr		S	S
	Spider*	Conv	S	S	S
American	Eagle	4Dr[6], SW	M	M	M
Aston Martin*	Lagonda	4Dr	L	L	L
	Saloon	2Dr	M	M	M
	Vantage	2Dr	M	M	M
	Volante	Conv	M	M	M
Audi	80	4Dr			M
	80 Quattro*	4Dr			M
	90*	4Dr			M
	90 Quattro*	4Dr			M
	4000	4Dr	M	M	
	4000 Quattro*	4Dr	S	S	
	5000*	4Dr, SW	M	M	M
	5000 Quattro*	4Dr, SW	M	M	M
	GT Coupe	2Dr	M	M	
Austin Rover*	Sterling 825	4Dr		M	M
Avanti*	Avanti	2Dr, Conv[3]	M	M	M
Bentley*	Continental	Conv		L	L
	Corniche	Conv	L		
	Eight	4Dr		L	L
	Mulsanne	4Dr	L	L	L
	Mulsanne-L	4Dr	L	L	

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
BMW*	325e	2Dr, 4Dr	M	M	M
	325i	2Dr, 4Dr, Conv		M	M
	325IX-4WD	2Dr, 4Dr			M
	524TD	4Dr	M	M	
	528e	4Dr	M	M	M
	535i	4Dr	M	M	M
	635CSi/L6	2Dr	M	M	M
	735i	4Dr	L	L	L
	750IL	4Dr			L
	L7	4Dr	L	L	
	M3	2Dr			M
	M5	4Dr			M
	M6	2Dr		M	M
Buick	Century	2Dr, 4Dr, SW	M	M	M
	Electra	2Dr[6], 4Dr, SW	L	L	L
	LeSabre	2Dr, 4Dr, SW	L	L	L
	Reatta*	2Dr			S
	Regal	2Dr	M	M	M
	Riviera*	2Dr	M	M	M
	Skyhawk	2Dr, 4Dr, SW	M	M	M
	Skylark	2Dr[1], 4Dr	M	M	M
	Somerset	2Dr	M	M	
Cadillac	Allante*	Conv		S	S
	Brougham*	4Dr	L	L	L
	Cimarron	4Dr	M	M	M
	DeVille*	2Dr, 4Dr	L	L	L
	Eldorado*	2Dr	M	M	M
	Fleetwood 60 Special*	4Dr		L	L
	Fleetwood d'Elegance*	4Dr		L	L
	Fleetwood Limo*	4Dr	L	L	
	Seville*	4Dr	M	M	M
Chevrolet	Astro Van	PV	L	L	L
	Beretta	2Dr		M	M
	Camaro*	2Dr, Conv[3]	M	M	M
	Caprice	2Dr, 4Dr, SW	L	L	L
	Cavalier	2Dr, 4Dr, SW, Conv*	M	M	M
	Celebrity	2Dr, 4Dr, SW	M	M	M
	Chevette	2Dr, 4Dr	S	S	
	Corisca	4Dr		M	M
	Corvette*	2Dr, Conv	S	S	S

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Chevrolet (cont'd)	Monte Carlo	2Dr	M	M	M
	Nova	4Dr	S	S	S
	Spectrum	2Dr, 4Dr	S	S	S
	Sprint	2Dr, 4Dr	S	S	S
Chrysler	Daytona	2Dr		S	S
	Dynasty	4Dr			M
	Laser	2Dr	S		
	LeBaron	2Dr, 4Dr, SW,Conv*	M	M	M
	LeBaron GTS	4Dr	M	M	M
	Limousine*	4Dr	L		
	New Yorker (C-Body)	4Dr			M
	New Yorker (E-Body)	4Dr	M	M	M
	New Yorker 5th Ave.	4Dr	L	L	L
	Newport	4Dr	L	L	L
Chrysler/ Plymouth/ Mitsubishi	Colt	2Dr, 4Dr, SW[1]	S	S	S
	Colt Vista	SW	M	M	M
	Colt Vista-4WD	SW	M	M	M
	Conquest	2Dr	S	S	S
Daihatsu	Charade	2Dr			S
Dodge	600	2Dr[4], 4Dr, Conv[4]*	M	M	M
	Aries	2Dr, 4Dr, SW	M	M	M
	Caravan	PV	L	L	L
	Charger	2Dr	S	S	
	Daytona	2Dr	S	S	S
	Diplomat	4Dr	L	L	L
	Dynasty	4Dr			M
	Grand Caravan	PV			L
	Lancer	4Dr	M	M	M
	Omni	4Dr	S	S	S
	Shadow	2Dr, 4Dr		S	S
	Shelby	2Dr	S	S	
Dodge/ Mitsubishi	Colt	2Dr, 4Dr, SW[1]	S	S	S
	Colt Vista	SW	M	M	M
	Colt Vista-4WD	SW	M	M	M
	Conquest	2Dr	S		

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Ferrari*	328 GTB/GTS	2Dr, Conv	S	S	S
	Mondial	2Dr, Conv	M	M	M
	Testarossa	2Dr	M	M	M
Fiat*	X 1/9	2Dr	S	S	S
Ford	Aerostar	PV	L	L	L
	Crown Victoria	2Dr[6], 4Dr, SW	L	L	L
	Escort	2Dr, 4Dr, SW	S	S	S
	Escort 88 1/2	2Dr, 4Dr, SW			S
	EXP*	2Dr	S	S	S
	Festiva	2Dr			S
	LTD	4Dr, SW	M		
	Mustang*	2Dr, Conv	M	M	M
	Taurus	4Dr, SW	M	M	M
	Tempo	2Dr, 4Dr	M	M	M
	Tempo-4WD	2Dr, 4Dr		M	M
	Thunderbird	2Dr	M	M	M
GMC	Safari Van	PV	L	L	L
Honda	Accord	2Dr, 4Dr	M	M	M
	Civic	2Dr, 4Dr, SW	S	S	S
	Civic CRX*	2Dr	S	S	S
	Civic-4WD	SW	S	S	S
	Prelude	2Dr	S	S	M
Hyundai	Excel	2Dr, 4Dr	S	S	S
Isuzu	I-Mark	2Dr, 4Dr	S	S	S
	Impulse	2Dr	S	S	S
Jaguar*	XJ6	4Dr	L	L	L
	XJ-S	2Dr	M	M	M
	XJ-SC	2Dr	M	M	M

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Lincoln*	Continental	4Dr	M	M	M
	Mark VII	2Dr	M	M	M
	Town Car	4Dr	L	L	L
Lotus*	Esprit Turbo	2Dr	S	S	S
Maserati*	425	4Dr	M	M	M
	Biturbo	2Dr	S	S	S
	Quattroporte	4Dr	L		
	Spyder	Conv	S	S	S
Mazda	323	2Dr, 4Dr, SW[3]	S	S	S
	323-4WD	2Dr			S
	626	4DR	S	S	M
	626/MX-6	2Dr	S	S	S
	929	4Dr			M
	GLC	SW	S		
	RX-7*	2Dr, Conv[1]	S	S	S
Mercedes-Benz*	190D, E	4Dr	M	M	M
	260E	4Dr		L	L
	300CE	2Dr			M
	300D	4Dr		L	
	300E	4Dr	L	L	L
	300SDL	4Dr	L	L	
	300SE	4Dr			L
	300SEL	4Dr			L
	300TE	SW			L
	300TD	SW		L	
	420SEL	4Dr	L	L	L
	560SEC	2Dr	L	L	L
	560SEL	4Dr	L	L	L
	560SL	Conv	S	S	S
Mercury	Capri*	2Dr	M		
	Cougar	2Dr	M	M	M
	Grand Marquis	2Dr[6], 4Dr, SW	L	L	L
	Lynx	2Dr, 4Dr, SW	S	S	
	Marquis	4Dr, SW	M		
	Sable	4Dr, SW	M	M	M
	Topaz	2Dr, 4Dr	M	M	M
	Tracer	2Dr, 4Dr, SW[1]		S	S

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Merkur*	Scorpio	4Dr		M	M
	XR4Ti	2Dr	M	M	M
Mitsubishi	Cordia	2Dr	S	S	S
	Galant	4Dr	M	M	
	Mirage	2Dr, 4Dr[3], SW[1]	S	S	S
	Sigma	4Dr			M
	Starion	2Dr	S	S	S
	Tredia	4Dr	S	S	S
	Wagon	SW		S	S
Nissan	200SX	2Dr	S	S	S
	300ZX*	2Dr	S	S	S
	300ZX 2+2*	2Dr	S	S	S
	Maxima	4Dr, SW	M	M	M
	Pulsar	2Dr	S	S	S
	Sentra	2Dr, 4Dr, SW	S	S	S
	Sentra-4WD	SW		S	S
	Stanza	4Dr	S	M	M
	Stanza	SW	S	S	S
	Stanza-4WD	SW	S	S	S
	Van	SW		S	S
Oldsmobile	Calais	2Dr, 4Dr	M	M	M
	Custom Cruiser	SW	L	L	L
	Cutlass Ciera	2Dr, 4Dr, SW	M	M	M
	Cutlass Supreme-FWD	2Dr			M
	Cutlass Supreme-RWD	2Dr, 4Dr[6]	M	M	M
	Delta 88	2Dr, 4Dr	L	L	L
	Firenza	2Dr, 4Dr, SW	M	M	M
	Ninety-Eight	2Dr[6], 4Dr	L	L	L
	Toronado*	2Dr	M	M	M
Panther*	Kallista	Conv.			M
Peugeot	505	4Dr	M	M	M
	505	SW	L	L	L
Plymouth	Caravelle	4Dr	M	M	M
	Gran Fury	4Dr	L	L	L

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Plymouth (cont'd)	Grand Voyager	PV			L
	Horizon	4Dr	S	S	S
	Reliant	2Dr, 4Dr, SW	M	M	M
	Sundance	2Dr, 4Dr		S	S
	Turismo	2Dr	S	S	
	Voyager	PV	L	L	L
Pontiac	1000	2Dr, 4Dr	S	S	
	6000	2Dr, 4Dr, SW	M	M	M
	Bonneville	4Dr	M	L	L
	Fiero*	2Dr	S	S	S
	Firebird*	2Dr	M	M	M
	Firefly	2Dr	S	S	S
	Grand Am	2Dr, 4Dr	M	M	M
	Grand Prix	2Dr	M	M	M
	LeMans	2Dr, 4Dr			S
	Parisienne/Safari	4Dr[4], SW	L	L	L
	Sunbird	2Dr, 4Dr, SW, Conv*	M	M	M
Porsche*	911 Coupe	2Dr, Conv	S	S	S
	924 Coupe	2Dr		S	S
	928 Coupe	2Dr	S	S	S
	944 Coupe	2Dr	S	S	S
Renault	Alliance	2Dr, 4Dr, Conv*	S	S	
	Encore	2Dr, 4Dr	S		
	GTA	2Dr, Conv*		S	
	Sportwagon	SW	S		
Renault/Eagle	Medallion	4Dr, SW			M
	Premier	4Dr			M
Rolls Royce*	Camargue	2Dr	L	L	
	Corniche	Conv	L	L	L
	Silver Spirit	4Dr	L	L	L
	Silver Spur	4Dr	L	L	L
Saab	900	2Dr, 4Dr, Conv*	S	S	S
	9000*	4Dr	M	M	M

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Subaru	DL/GL	2Dr, 4Dr, SW	S	S	S
	DL/GL-4WD	2Dr, 4Dr, SW	S	S	S
	Hatchback	2Dr	S	S	S
	Hatchback-4WD	2Dr	S	S	S
	Justy	2Dr		S	S
	Justy-4WD	2Dr			S
	XT Coupe	2Dr	S	S	S
	XT Coupe-4WD	2Dr	S	S	S
	XT Coupe DL*	2Dr	S	S	S
Suzuki	Forsa	2Dr, 4Dr			S
Toyota	Camry	4Dr, SW[3]	M	M	M
	Camry-4WD	4Dr			M
	Celica	2Dr, Conv[3]*	S	S	S
	Celica-4WD	2Dr			S
	Celica Supra*	2Dr	M		
	Corolla	2Dr, 4Dr, SW[1]	S	S	S
	Corolla-4WD	SW			S
	Corolla FX	2Dr		S	S
	Cressida	4Dr, SW[6]	M	M	M
	MR2*	2Dr	S	S	S
	Supra*	2Dr	M	M	M
	Tercel	2Dr, 4Dr, SW[6]	S	S	S
	Tercel-4WD	SW	S	S	S
	Van	PV	S	S	S
	Van-4WD	PV		S	S
TVR*	280i	2Dr, Conv	S	S	S
Volkswagen	Cabriolet*	Conv	S	S	S
	Fox	2Dr, 4Dr, SW		S	S
	Golf	2Dr, 4Dr	S	S	S
	GTI	2Dr	S	S	S
	Jetta	2Dr, 4Dr	S	S	S
	Quantum	4Dr, SW	M	M	M
	Quantum-4WD	SW	M	M	M
	Scirocco	2Dr	S	S	S
	Vanagon	PV	S	S	S

(See notes on page 52.)

Make Name	Series Name	Body Style	Vehicle Size Class 1986	1987	1988
Volvo	240	4Dr, SW	M	M	M
	740*/760*	4Dr, SW	M	M	M
	780*	2Dr, 4Dr, SW		M	M
Yugo	Yugo	2Dr	S	S	S

Size Class:

Small — wheelbase (after rounding to nearest inch) less than 100.
Midsize — wheelbase (after rounding to nearest inch) in the range 100-109.
Large — wheelbase (after rounding to nearest inch) greater than 109.

Body Style Abbreviations:

2Dr — Two-door
4Dr — Four-door
Conv — Convertible
PV — Passenger Van
SW — Station Wagon

Notes:

1 1988 models only
2 1987 models only
3 1987 and 1988 models only
4 1986 models only
5 1986 and 1988 models only
6 1986 and 1987 models only

* These cars are classified as sports or specialty models.

Appendix A-2
1986-88 Vehicle Series Designations

Vans, Pickups, and Utility Vehicles

Make Name	Series Name	Vehicle Type	Size Class	Model Years
Chevrolet	Astro Cargo Van	Van		86-88
	Chevyvan (1/2 T)	Van		86-88
	Chevyvan (3/4 T)	Van		86-88
	Sportvan (1/2 T)	Van		86-88
	Sportvan (3/4 T)	Van		86-88
	S10	Pickup	Small	86-88
	S10 Extended Cab	Pickup	Small	87-88
	El Camino	Pickup	Standard	86-87
	10 Series (1/2 T)	Pickup	Standard	86-88
	20 Series (3/4 T)	Pickup	Standard	86-88
	20 Series Crew Cab (3/4 T)	Pickup	Standard	86-88
	K10 Blazer (1/2 T)	Util. Veh.	Intermediate	86-88
	S10 Blazer	Util. Veh.	Intermediate	86-88
	Suburban (1/2 T)	Util. Veh.	Large	86-88
	Suburban (3/4 T)	Util. Veh.	Large	86-88
Dodge	B150 (1/2 T)	Van		86-88
	B150 Cargo Van	Van		86-88
	B250 (3/4 T)	Van		86-88
	B250 Cargo Van	Van		86-88
	Mini-Ram/Royal	Van		86-88
	Ram 50/D50	Pickup	Small	86-88
	Ram 50 Long Bed	Pickup	Small	87-88
	Dakota	Pickup	Standard	87-88
	D150/W150 (1/2 T)	Pickup	Standard	86-88
	D250/W250 (3/4 T)	Pickup	Standard	86-88
	Raider	Util. Veh.	Small	87-88
	AD150/AW150 (1/2 T)	Util. Veh.	Intermediate	86-88
Ford	Aerostar Cargo Van	Van		86-88
	E-150 Club Wagon (1/2-3/4 T)	Van		86-88

Make Name	Series Name	Vehicle Type	Size Class	Model Years
Ford (cont'd)	E-150 Econoline Cargo Van(1/2-3/4 T)	Van		86-88
	E-250 Club Wagon (3/4 T)	Van		86-88
	E-250 Econoline Cargo Van (3/4 T)	Van		86-88
	Ranger	Pickup	Small	86-88
	Ranger Super Cab	Pickup	Small	86-88
	F-150 (1/2-3/4 T)	Pic up	Standard	86-88
	F-150 Super Cab	Pickup	Standard	86-88
	F-250 (3/4 T)	Pickup	Standard	86-88
	F-250 Super Cab	Pickup	Standard	86-88
	Bronco II	Util. Veh.	Small	86-88
	Bronco	Util. Veh.	Intermediate	86-88
GMC	Rally Wagon (1/2 T)	Van		86-88
	Rally Wagon (3/4 T)	Van		86-88
	Safari Cargo Van	Van		86-88
	Vandura (1/2 T)	Van		86-88
	Vandura (3/4 T)	Van		86-88
	S15	Pickup	Small	86-88
	S15 Extended Cab	Pickup	Small	86-88
	Caballero	Pickup	Standard	86-87
	1500 Series (1/2 T)	Pickup	Standard	86-88
	2500 Series (3/4 T)	Pickup	Standard	86-88
	2500 Series Crew Cab (3/4 T)	Pickup	Standard	86-88
	Jimmy (1/2 T)	Util. Veh.	Intermediate	86-88
	S15 Jimmy	Util. Veh.	Intermediate	86-88
	Suburban (1/2 T)	Util. Veh.	Large	86-88
	Suburban (3/4 T)	Util. Veh.	Large	86-88
Isuzu	Long Bed	Pickup	Small	86-88
	Long Cab	Pickup	Small	86-88
	Standard Bed	Pickup	Small	86-88
	Trooper II 4x4	Util. Veh.	Intermediate	86-88

Make Name	Series Name	Vehicle Type	Size Class	Model Years
Jeep	Comanche	Pickup	Small	87-88
	Comanche Long Bed	Pickup	Small	86-88
	J10 Long Bed	Pickup	Standard	86-88
	J20 Long Bed	Pickup	Standard	86-88
	CJ-7	Util. Veh.	Small	86
	Wrangler	Util. Veh.	Small	87-88
	Cherokee	Util. Veh.	Intermediate	86-88
	Grand Wagoneer	Util. Veh.	Intermediate	86-88
	Wagoneer	Util. Veh.	Intermediate	86-88
Mazda	Cab Plus	Pickup	Small	86-88
	Long Bed	Pickup	Small	86-88
	Standard Bed	Pickup	Small	86-88
Mitsubishi	Cargo Van	Van		87-88
	Extended Cab	Pickup	Small	88
	Long Bed	Pickup	Small	87-88
	Standard Bed	Pickup	Small	86-88
	Montero	Util. Veh.	Small	86-88
Nissan	King Cab	Pickup	Small	86-88
	Long Bed	Pickup	Small	86-88
	Standard Bed	Pickup	Small	86-88
	Pathfinder	Util. Veh.	Intermediate	87-88
Range Rover	Range Rover	Util. Veh.	Intermediate	87-88
Subaru	Brat	Pickup	Small	86-87
Suzuki	Samurai	Util. Veh.	Small	86-88
	Samurai Van	Util. Veh.	Small	86-88

Make Name	Series Name	Vehicle Type	Size Class	Model Years
Toyota	Cargo Van	Van		86-88
	Long Bed (1/2 T)	Pickup	Small	86-88
	Standard Bed	Pickup	Small	86-88
	Xtra Cab	Pickup	Small	86-88
	Xtra Cab Long Bed	Pickup	Small	86-88
	4Runner	Pickup	Standard	86-88
	4Runner Wagon	Util. Veh.	Intermediate	86-88
	Land Cruiser	Util. Veh.	Intermediate	86-88
Volkswagen	Vanagon Camper	Van		86-88

APPENDIX B Definitions

Average Loss Payment per Claim — The total of all loss payments made for the claims for a group of vehicles, divided by the number of claims paid.

Average Loss Payment per Insured Vehicle Year — For a group of vehicles, the product of Claim Frequency and Average Loss Payment per Claim, expressed as dollars per insured vehicle year. It should be noted that this definition differs from the commonly used insurance term, pure premium, but yields similar results.

Claim Frequency — The number of claims for a group of vehicles, divided by the exposure for that group.

Collision Coverages — As defined in insurance contracts, the coverage under which people insure their own vehicle against loss caused by collision.

Deductible Amount — That portion of the collision damage cost borne by the policyholder. For computing results, deductible amounts are split into two groups; less than $150 (mainly $50 and $100 deductibles) and greater than or equal to $150 (mainly $200 and $250 deductibles).

Exposure — The time interval an individual vehicle is insured. Exposure for a group of vehicles is expressed in units of insured vehicle years.

Loss Payment — That portion of the collision damage cost borne by the insurer; in general, the total collision damage cost minus the deductible amount.

Operator Age Group — The factor which distinguishes those vehicles whose rated driver is youthful from those vehicles whose rated driver is not youthful (see Youthful Operator).

Rated Driver — The driver who, for insurance purposes, is considered to represent the greatest loss potential for the insured vehicle.

Vehicle Class — There are four vehicle classes, defined as follows:

1. **Passenger Cars** — There are four major body style groupings of passenger cars — regular two-door models, regular four-door models, station wagons and passenger vans, and sports and specialty models. Sports or specialty models include all two-seater cars, all convertibles, all midsize and large cars with two or fewer designated rear seating positions, and all luxury cars. Each body style group is further divided into size class subgroups based on wheelbase (rounded to nearest inch) defined as follows:

   Small — Vehicles with wheelbases less than or equal to 99 inches.

   Midsize — Vehicles with wheelbases greater than 99 inches and less than or equal to 109 inches.

   Large — Vehicles with wheelbases greater than 109 inches.

2. **Vans** — Fully enclosed vehicles with either no hood or a very short hood, in which the engine is placed at least 50 percent behind the windshield. The driver's position is usually well forward, nearly beside the engine, usually within the forward 25 percent of the wheelbase. These vehicles are designed for cargo transport and are equipped with a right side cargo access door and rear door. The cargo area is not separated from the passenger area — both are enclosed under the same roof. Some passenger vans are equipped with additional seats in the cargo area and usually have additional side windows also.

3. **Pickups** — Cargo-carrying vehicles, usually on a truck chassis, with an enclosed cab and a separate open cargo area. The open cargo area generally is a box with raised sides with an opening tailgate. There are also a small number of auto pickups which are similar to regular pickups except that they are built on a passenger car chassis. Pickups are further divided into two subgroups based on curb weight — small pickups (less than 3,500 pounds) and standard pickups (3,500 pounds or more).

4. **Utility Vehicles** — Vehicles built on a heavy-duty chassis capable of off-road use. They are of conventional construction with the driver behind the engine. The cargo and passenger areas are integral with the driver area. Many of these vehicles are equipped with soft or removable tops. Frequently, these vehicles are equipped with four-wheel drive. Utility vehicles are further divided into three subgroups based on wheelbase — small utility vehicles (less than 100 inches), intermediate utility vehicles (from 100 to 120 inches), and large utility vehicles (greater than 120 inches).

Vehicle Identification Number (VIN) — A code, variously comprising both numbers and letters; normally, 8 to 17 characters in length, assigned to each vehicle by its manufacturer. The VIN uniquely identifies the vehicle within at least a ten-year time span and, in recent model year vehicles, contains characteristics of each vehicle.

Vehicle Series — A name denoting a family of vehicles, within a make, with the same wheelbase and a degree of commonality in construction such as body, chassis, etc.

Youthful Operator — For the purposes of this report, all males (married or single) under 25 years of age and all unmarried females under 25 years of aged.

HLDI Publications

Research reports published by the Highway Loss Data Institute are:

R72-1 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1972 Models,* June 1973.

R73-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1973 Models Compared with 1972 Models,* September 1973.

R73-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1973 Models,* March 1974.

R73-3 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1973 Models During Their First Two Years,* December 1974.

R73-4 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1973 Models During Their First Three Years,* December 1975.

R74-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1974 Models,* May 1974.

R74-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1974 Models During Their First Year,* December 1974.

R74-3 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1974 Models During Their First Two Years,* December 1975.

R75-1 *Automobile Insurance Losses, Collision Coverages, Initial Results for 1975 Models,* July 1975.

R75-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1975 Models During Their First Year,* December 1975.

R76-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1976 Models,* June 1976.

R76-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1976 Models During Their First Year, 1975 Models During Their First Two Years, 1974 Models During Their First Three Years,* December 1976.

R77-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1977 Models,* June 1977.

R77-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1977 Models During Their First Year, 1976 Models During Their First Two Years, 1975 Models During Their First Three Years,* December 1977.

R78-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1978 Models,* June 1978.

R78-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1978 Models During Their First Year, 1977 Models During Their First Two Years, 1976 Models During Their First Three Years,* January 1979.

R79-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1979 Models,* June 1979.

R79-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1979 Models During Their First Year, 1978 Models During Their First Two Years, 1977 Models During Their First Three Years,* December 1979.

R80-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1980 Models,* June 1980.

R80-2 *Automobile Insurance Losses, Collision Coverages; Variations by Make and Series, 1980 Models During Their First Year, 1979 Models During Their First Two Years, 1978 Models During Their First Three Years,* December 1980.

R81-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1981 Models,* July 1981.

R81-2 *Insurance Losses, Collision Coverages; Passenger Cars, Vans, Pickups, and Utility Vehicles; 1981 Models During Their First Year, 1980 Models During Their First Two Years, 1979 Models During Their First Three Years,* December 1981.

R82-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1982 Models,* July 1982.

R82-2 *Insurance Losses, Collision Coverages; Passenger Cars, Vans, Pickups, and Utility Vehicles; 1982 Models During Their First Year, 1981 Models During Their First Two Years; 1980 Models During Their First Three Years,* December 1982.

R83-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1983 Models,* June 1983.

R83-2 *Insurance Losses, Collision Coverages; Passenger Cars, Vans, Pickups, and Utility Vehicles; 1983 Models During Their First Year, 1982 Models During Their First Two Years, 1981 Models During Their First Three Years,* January 1984.

R84-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1984 Models,* June 1984.

R84-2 *Insurance Losses, Collision Coverages; Passenger Vehicles, Vans, Pickups, and Utility Vehicles; 1984 Models During Their First Year, 1983 Models During Their First Two Years, 1982 Models During Their First Three Years,* January 1985.

R85-1 *Automobile Insurance Losses, Collision Coverages; Initial Results for 1985 Models,* July 1985.

R85-2 *Insurance Collision Report, Passenger Vehicles, Vans, Pickups, and Utility Vehicles, 1985 Models During Their First Year, 1984 Models During Their First Two Years, 1983 Models During their First Three Years,* January 1986.

R86-1 *Insurance Collision Report, Initial Results for 1986 Automobiles,* August 1986.

R86-2 *Insurance Collision Report, Passenger Cars, Vans, Pickups, and Utility Vehicles, 1986 Models During Their First Year, 1985 Models During Their First Two Years, 1984 Models During Their First Three Years* December 1986.

R87-1 *Insurance Collision Report, Initial Results for 1987 Automobiles,* July 1987.

R87-2 *Insurance Collision Report, Passenger Cars, Vans, Pickups, and Utility Vehicles, 1987 Models During Their First Year, 1986 Models During Their First Two Years, 1985 Models During Their First Three Years,* December 1987.

R88-1 *Insurance Collision Report, Initial Results for 1988 Automobiles,* July 1988

R88-2 *Insurance Collision Report, Passenger Cars, Vans, Pickups, and Utility Vehicles, 1988 Models During Their First Year, 1987 Models During Their First Two Years, 1986 Models During Their First Three Years,* December 1988

V78-1 *Automobile Insurance Losses, Non-Commercial Collision Coverages; Variations by Make and Series, Vans, Pickups and Utility Vehicles; 1978 Models During Their First Year, 1977 Models During Their First Two Years,* February 1979.

V79-1 *Automobile Insurance Losses, Non-Commercial Collisions Coverages; Variations by Make and Series, Vans, Pickups and Utility Vehicles; 1979 Models During Their First Year, 1978 Models During Their First Two Years,* April 1980.

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SUMMARY

This Highway Loss Data Institute report presents results of the collision coverage loss experience of 1989 model year passenger vehicles during their first months of availability.

- The 1989 models show large variations in collision loss results among individual vehicle series. Claim frequencies ranged from 5.7 to 16.4 claims per 100 insured vehicle years; average loss payments per claim ranged from about $1,100 to $3,250; and average loss payments per insured vehicle year were from $97 to $482.
- Even among cars of the same size class and body style, there were large variations in the results for individual vehicle series.
- Collision coverage claim frequencies varied inversely with car size (i.e., collision claim frequencies tended to decrease with increasing car size).
- The overall average loss payment per claim increased five percent for 1989 over 1988 models, but the claim frequency decreased by three percent resulting in an increase of $4 in the average loss payment per insured vehicle year.

INTRODUCTION

The Highway Loss Data Institute (HLDI) is a nonprofit public service organization that gathers, processes, and publishes insurance data concerned with human and economic losses resulting from highway crashes and especially with the ways such losses vary among different kinds of vehicles.

This report summarizes the collision coverage loss results of 1989 passenger vehicles during their initial period of exposure -- June 1988 through February 1989. It is based on collision coverage and loss data supplied by 11 insurers: Aetna, Allstate, Fireman's Fund, Kemper, Liberty Mutual, Nationwide, Prudential, Safeco, State Farm, Travelers, and USAA.

Descriptions of the sources and nature of the data used are presented in Appendix A. The data analysis methods are presented in Appendix B and definitions are given in Appendix C. A complete list of vehicle series designations by make and size class appears in Appendix D.

It is intended that the dissemination of this and other HLDI reports will contribute to research into ways for reducing crash damage, crash injuries, and theft losses, and that it will inform the public about differences in the loss experience produced by different kinds of vehicles.

RESULTS AND DISCUSSION

Comparison of Results for Individual Series -- 1989 Models

Table 1 presents detailed collision coverage loss results for 1989 models during their initial exposure period -- June 1988 through February 1989. Aggregated results are presented for all 1989 models combined and for passenger vehicles grouped by size and body style. Results are also presented for each individual series with at least 1,000 insured vehicle years of exposure. Sixty-two series, out of a total of more than 400 contained in the HLDI data base for 1989 models, had accumulated sufficient exposure to meet the reporting threshold; some 1989 models were introduced in the first half of calendar year 1988 (e.g., Ford Probe). Results for additional vehicle series will be reported subsequently as more exposure is accumulated.

The results presented are exposure (measured in insured vehicle years) and relative values for three quantities that summarize the collision losses: claim frequency per 100 insured vehicle years, average loss payment per claim, and average loss payment per insured vehicle year. The relative results are based on the following overall results for all 1989 models combined: for claim frequency results, 100 is equivalent to 10.1 claims per 100 insured vehicle years; for average loss payment per claim, 100 is equivalent to $2,132; and for average loss payment per insured vehicle year, 100 is equivalent to $215. For example, the relative claim frequency for the two-door Mazda 323 of 96 indicates a frequency that is 4 percent lower than 10.1 (the result for all 1989 models combined). In contrast, the two-door Nissan Sentra's relative claim frequency of 139 is 39 percent higher than the 1989 overall claim frequency. (The overall results are discussed further on page 6 and are presented for comparison in Table 3.)

The results shown in Table 1 were standardized to minimize effects due to differences in the mix of operator age groups and deductible amounts among different vehicles. Both the frequency and average size of collision coverage losses vary with the deductible amount and the age group of the operators. Standardizing these two nonvehicle factors ensures that their mix is the same for each vehicle. It should be noted, however, that other nonvehicle factors could vary among different vehicles and that such factors could affect collision coverage loss experience. The standardization process is described in detail in Appendix B.

The individual series in Table 1 are listed by body style within car size group (small, midsize, large) in ascending order of their relative average loss payments per insured vehicle year. It should be noted that, in general, the greater the exposure associated with a result, the more confidence can be placed in it.

As has been the case with previous HLDI collision reports, there are large variations in loss experience among the individual series. The Chevrolet Astro Van's relative average loss payment per insured vehicle year of 45 was the lowest. Two four-door models -- the Dodge Dynasty and Chevrolet Caprice -- and the Dodge Grand Caravan were the only other 1989 series with average loss payments per insured vehicle year less than half the overall combined 1989 result. At the other extreme, the Ford Mustang, a mid-size sports model, was the only vehicle with an average loss payment per insured vehicle year (224) more than double the average.

The Chevrolet Astro Van also had the lowest relative average loss payment per claim (53) and the Ford Mustang registered the highest (152).

The Chrysler New Yorker, classified as a mid-size four-door model, had the lowest relative claim frequency (57) and the Nissan 240SX, a small two-door model, had the highest (163).

Several passenger vehicles experienced significantly worse than average results in both claim frequency and average loss payment per claim. The Ford Mustang, Chevrolet Camaro, Nissan Sentra, and Dodge Daytona

Table 1
Insurance Losses, Collision Coverages
1989 Models - Passenger Vehicles

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
All	**All**	**192,803**	**100 = 10.1**	**100 = $2,132**	**100 = $215**
		Small Cars			
Two-Door Models		**36,578**	**124**	**110**	**136**
Honda	Civic	1,022	100	82	82
Mazda	323	1,299	96	102	98
Toyota	Tercel	2,271	136	79	108
Toyota	Celica	1,230	129	99	128
Hyundai	Excel	1,349	131	100	132
Mazda	MX-6	1,257	124	107	133
Ford	Probe	11,415	116	119	138
Nissan	240 SX	1,326	163	90	146
Ford	Escort	3,561	128	119	152
Dodge	Daytona	1,244	128	121	155
Nissan	Sentra	2,809	139	122	171
Four-Door Models		**16,289**	**111**	**95**	**105**
Toyota	Corolla	2,613	98	85	83
Ford	Escort	1,252	95	106	101
Honda	Civic	2,567	114	90	102
Hyundai	Excel	2,845	127	87	110
Mazda	323	1,303	108	106	115
Station Wagons/Passenger Vans		**1,616**	**82**	**95**	**78**
Sports & Specialty		**1,860**	**118**	**110**	**130**
		Midsize Cars			
Two-Door Models		**24,453**	**105**	**95**	**100**
Buick	Regal	1,328	85	79	67
Oldsmobile	Calais	1,225	89	82	73
Pontiac	Grand Am	3,457	88	99	87
Pontiac	Grand Prix	2,489	100	89	89
Chevrolet	Cavalier	4,773	113	95	108
Chevrolet	Beretta	4,021	110	98	108
Pontiac	Sunbird	1,570	129	92	119
Honda	Accord	1,254	114	114	130
Honda	Prelude	1,658	114	116	133

Table 1 (Cont'd)

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		Midsize Cars (Cont'd)			
Four-Door Models		**45,147**	**88**	**94**	**83**
Dodge	Dynasty	1,017	62	75	46
Chevrolet	Cavalier	1,043	98	64	63
Buick	Century	2,695	72	88	63
Chevrolet	Celebrity	2,866	73	91	67
Pontiac	6000	1,199	86	80	68
Chrysler	New Yorker	1,224	57	120	69
Ford	Tempo	2,363	76	93	71
Mercury	Sable	1,202	85	86	73
Toyota	Camry	3,878	74	102	76
Chevrolet	Corsica	3,342	106	72	76
Pontiac	Grand Am	1,343	86	92	79
Oldsmobile	Cutlass Ciera	2,555	72	112	81
Mercury	Topaz	1,158	93	95	89
Ford	Taurus	3,324	83	116	96
Mazda	626	2,185	95	103	97
Honda	Accord	3,950	109	91	99
Mitsubishi	Galant	2,539	101	101	102
Station Wagons/Passenger Vans		**4,112**	**82**	**106**	**86**
Ford	Taurus	1,367	75	139	104
Sports & Specialty		**15,085**	**121**	**128**	**155**
Pontiac	Firebird	1,255	152	81	123
Chevrolet	Camaro	2,466	138	124	170
Ford	Mustang	3,394	147	152	224
		Large Cars			
Two-Door Models		**1,210**	**86**	**98**	**85**
Four-Door Models		**18,032**	**74**	**97**	**72**
Chevrolet	Caprice	2,552	68	69	46
Mercury	Grand Marquis	3,524	67	89	60
Buick	Electra	1,302	74	83	62
Pontiac	Bonneville	1,936	74	101	75
Ford	Crown Victoria	2,292	76	102	77
Buick	LeSabre	2,180	83	95	78
Oldsmobile	Delta 88	2,402	81	113	92
Oldsmobile	Ninety-Eight	1,310	79	144	114

Table 1 (Cont'd)

Make	Series	Total Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
		Large Cars (Cont'd)			
Station Wagons/Passenger Vans		**22,413**	**83**	**70**	**58**
Chevrolet	Astro Van	2,021	86	53	45
Dodge	Grand Caravan	2,775	69	70	49
Plymouth	Grand Voyager	2,735	80	68	54
Ford	Aerostar	6,407	86	65	56
Dodge	Caravan	2,929	89	70	62
Plymouth	Voyager	3,276	74	91	68
Sports & Specialty		**6,003**	**85**	**131**	**111**
Lincoln	Town Car	1,469	72	115	82
Cadillac	DeVille 4D	1,915	98	104	102

Series are ranked within group and subgroup by ascending average loss payment per insured vehicle year. Series with less than 1,000 insured vehicle years of exposure are not summarized.

Results are standardized to the distribution:

Deductible	Youthful Operator	No Youthful Operator
<$150	5%	50%
≥$150	5%	40%

all had results at least 20 percent above the overall result in both categories.

As noted in previous collision reports, even among vehicles of the same size and body style, there can be large variations in the collision coverage loss results for individual vehicle series. For example, among small two-door models, the relative results for claim frequency ranged from 96 to 163, for average loss payment per claim they ranged from 79 to 122, and for average loss payment per insured vehicle year they were from 82 to 171.

1989 Model Results By Car Size

Table 1 also provides aggregated results for passenger vehicles grouped by size and body style. The aggregated results indicate that for regular two-door and four-door models collision claim frequencies and average loss payments per insured vehicle year decrease with increasing car size.

To highlight this inverse relationship between vehicle size and claim frequencies, Table 2 displays standardized data for all regular two-door and four-door models combined. Claim frequency is the highest for the small size class vehicles (12.0 per 100 insured vehicle years), lower for mid-size (9.5), and lowest for large vehicles (7.6). The average loss payment per insured vehicle year for two-door and four-door models combined declines from $270 for the small size class to $190 for mid-size and to $158 for large vehicles.

Table 2
Collision Coverage Insurance Losses
1989 Two-Door and Four-Door Models Combined

Size Class	Claim Frequency	Average Loss Payment Per Claim	Average Loss Payment Per Insured Vehicle Year
Small	12.0	$2,243	$270
Midsize	9.5	1,999	190
Large	7.6	2,081	158

Comparison of 1988 and 1989 Model Year Overall Results

Table 3 compares the overall claim frequency, average loss payment per claim, and average loss payment per insured vehicle year for 1989 models during their initial exposure period with those of 1988 models during the same calendar period and for the corresponding period one year earlier. Because the comparisons of the initial results for 1989 models and those for 1988 models are for calendar periods that are one year apart, they could be influenced by differences not only between model years but also calendar periods. In comparisons based on results from the same calendar period, the 1988 vehicles would be an average of one year older than the 1989 vehicles, and the comparisons could be influenced by differences in the vehicle ages. For these reasons, two sets of results for the 1988 models are presented in Table 3. The initial 1988 results are based on the exposure period one year earlier than that of the second set of 1988 model results, which are based on the same exposure period as the 1989 model year results. The June 1988 through February 1989 results for 1988 models were separately adjusted to ensure that the contribution of exposure from each month was comparable to that for the 1989 models. The monthly adjustment procedure is described in detail in Appendix B. The overall results for 1988 and 1989 models during June 1988 through February 1989 show that for 1989 models the frequency of collision claims decreased by three percent, the average loss payment per claim increased by five percent, and the average loss payment per insured vehicle year increased by two percent.

Table 3
Overall Collision Coverage Loss Experience of 1989 Models Compared to 1988 Models

Loss Category	1988 Models		1989 Models	Percentage Change
	June 1987-Feb. 1988*	June 1988-Feb. 1989**	June 1988-Feb. 1989	June 1988-Feb. 1989
Claim Frequency Per 100 Insured Vehicle Years	11.1	10.4	10.1	-3
Average Loss Payment Per Claim	$1,921	$2,028	$2,132	+5
Average Loss Payment Per Insured Vehicle Year	$213	$211	$215	+2

* Comparisons to 1989 models may be influenced by model year and calendar period differences.
** Comparisons to 1989 models may be influenced by model year and vehicle age differences.

APPENDIX A
Sources and Nature of Data

Both policy and claim related collision coverage data for 1989 model year vehicles in the calendar period June 1988 through February 1989 were used in the preparation of this report. Assigned risk, fleet policies, and all data from Massachusetts were excluded. Only payments for damage to insured automobiles were included; monies recovered from the salvage of wrecked vehicles were excluded, as were monies subsequently recovered by the companies through subrogation actions. Data for June 1988 through February 1989 were collected from the following companies: Aetna, Allstate, Fireman's Fund, Kemper, Liberty Mutual, Nationwide, Prudential, Safeco, State Farm, Travelers, and USAA.

Insurance Policy Data

Insurance policy data, as distinct from claim data, describe the characteristics of an insured vehicle, including its make and series and the nature of its collision coverage. Policy data used in this report included the following basic information:

- Vehicle Identification Number (VIN)[1]
- Deductible Amount[1]
- Rated Driver Characteristics[1]
- Date and Nature of Relevant Changes in Coverage

Insurance Claim Data

Insurance claim data report the characteristics of an insured vehicle for which a collision coverage claim is made, the initiation of the claim, and/or the corresponding payment. Claim data used in the report included the following basic information:

- Vehicle Identification Number (VIN)
- Crash Date
- Loss Payment Amount

The dollar amounts reported represented loss payments made to or on behalf of the policyholder for damage to the insured vehicle.

APPENDIX B
Method of Data Analysis
Vehicle Description and Identification

The Vehicle Identification Numbers (VINs) of most new automobiles sold in the United States are individually unique numbers that contain, in coded form, detailed information as to each vehicle's make, series, and other distinguishing characteristics.

The specific vehicle types for which results are presented in this report were derived from the VINs of the individual automobiles.

Only data with valid VINs were used for this report. Each VIN was decoded into a set of specific vehicle characteristics. For the purposes of this report the vehicle characteristics of primary concern were make, series, and vehicle size class (Appendix D). The use of VINs also permits analyses of other very specific vehicle characteristics, such as horsepower, body style, etc.

Exposure

Exposure, in insured vehicle years, was computed for each individual vehicle from the coverage data. The total number of insured vehicle years for each vehicle series was then obtained by accumulating the exposure for all of the individual vehicles of that vehicle series.

The exposure for each vehicle series was obtained for the four combinations of deductible amount and operator age group, a, b, c, d, shown below:

Deductible Amount	Youthful Operator	No Youthful Operator
<$150	a	b
≥$150	c	d

Claim Frequency

Both pending and paid claims for an individual vehicle were first matched with its corresponding coverage data to ensure that the crash had occurred within an appropriate period of collision coverage for that vehicle. In every instance in which multiple claims were made for the same crash, they were treated as a single claim in the calculations of claim frequency. Claims that were settled without payment, as well as those paid even though the damage was less than the deductible amount, were excluded from the computations. All remaining claims for each vehicle series were used, together with the corresponding exposure, to compute the claim frequency: the number of claims per 100 insured vehicle years.

For each vehicle series, claim frequencies were computed for each of the four combinations of deductible and operator age group, a, b, c, d, shown in the diagram.

Average Loss Payment Per Claim

Paid claims for each vehicle series were used to compute its average loss payment per claim. They were summed and divided by the number of claims to produce the average loss payment per claim. Claims that were settled without payment, as well as those paid even though the damage was less than the deductible amount, were excluded from the computations. In every instance in which multiple claims and/or multiple payments were made for the same crash, they were treated as a single claim and/or single payment in the calculation of average loss payment.

Average loss payments per claim were also obtained for each combination of deductible amount and operator age group.

Average Loss Payment Per Insured Vehicle Year

The average loss payment per insured vehicle year for each vehicle series was obtained by multiplying the claim frequency per 100 insured vehicle years by the average loss payment per claim, and dividing the result by 100.

Average loss payments per insured vehicle year were also obtained for each combination of deductible amount and operator age group.

Standardization

It is well known that loss experience can vary substantially in relation to certain nonvehicle factors. Two important such factors are the deductible amount of the coverage and the operator age group; both claim frequency and average loss payment vary with these factors. In the case of the operator age group, youthful operators generally generate higher insurance losses than older drivers. Thus, if compared vehicles have different proportions of youthful operators, this difference, if not taken into consideration, would be sufficient to bias the comparison. Results obtained from the two deductible categories, less than $150 and greater than or equal to $150, also vary. For example, average loss payments for the higher deductibles are greater than those for the lower deductibles. Again, if compared vehicles have different proportions of lower deductible coverages, this difference, if not taken into consideration, would also be sufficient to bias the comparison.

To minimize any biases in the comparison of results that could arise because of differences attributable to variations among different vehicles in deductible amount and operator age groups, results were first adjusted or standardized so as to equalize the effects of the two nonvehicle factors in the standardized results. In this procedure, a weighted average of the actual results for each combination of deductible amount and operator age group was computed using the standardization weights shown in the table below. Because the same weights were always used, the effects due to the nonvehicle factors were present in equal amounts in the standardized results. Therefore, to the extent that the age distributions within each operator age group and the deductible distributions within each deductible group do not vary substantially for different vehicles, these effects can no longer bias comparisons of results.

The standardization procedure employed is widely used in health statistics.[2] The basic principle of the method is the introduction of a selected population with a standard distribution across the combinations of deductible amount and operator age group as represented by the standardization weights in the table.

STANDARDIZATION WEIGHTS

Deductible Amount	Operator Age Group: Youthful Operator	No Youthful Operator	Combined
<$150	0.05	0.50	0.55
≥$150	0.05	0.40	0.45
Combined	0.10	0.90	1.00

Mathematical Description of Standardization Procedure

The standardization procedure can be represented mathematically as follows:

Deductible Amount	Operator Age Group: Youthful Operator	No Youthful Operator	Combined
<$150	X_{11}	X_{12}	$X_{1.}$
≥$150	X_{21}	X_{22}	$X_{2.}$
Combined	$X_{.1}$	$X_{.2}$	$X_{..}$

where,

- X_{ij} represents a computed claim frequency for a particular vehicle series with respect to the deductible amount i and age group j, and
- i = 1 for deductibles < \$150 and 2 for deductibles ≥ \$150,
- j = 1 for youthful operator group and 2 for no youthful operator group,
- $X_{.j}$ represents the computed claim frequency for all deductibles combined for age group j,
- $X_{i.}$ represents the computed claim frequency for both operator age groups combined for deductible amount group i, and,
- $X_{..}$ represents the computed claim frequency for all deductibles and both age groups combined.

Now, if weights are defined as follows:

	Operator Age Group		
Deductible Amount	Youthful Operator	No Youthful Operator	Combined
<\$150	W_{11}	W_{12}	$W_{11} + W_{12}$
≥\$150	W_{21}	W_{22}	$W_{21} + W_{22}$
Combined	$W_{11} + W_{21}$	$W_{12} + W_{22}$	1

where $W_{11} + W_{21} + W_{12} + W_{22} = 1$,

then the standardized claim frequency for the particular vehicle series is:

$$W_{11}X_{11} + W_{21}X_{21} + W_{12}X_{12} + W_{22}X_{22},$$

and, if A_{ij} represents the computed average loss payment per claim for a particular vehicle series, then the standardized average loss payment per claim is:

$$\frac{W_{11}X_{11}A_{11} + W_{21}X_{21}A_{21} + W_{12}X_{12}A_{12} + W_{22}X_{22}A_{22}}{W_{11}X_{11} + W_{21}X_{21} + W_{12}X_{12} + W_{22}X_{22}}$$

The standardized average loss payment per insured vehicle year is obtained by multiplying the standardized claim frequency by the standardized average loss payment and dividing by 100.

Similarly, it is possible to standardize within a deductible category or within an operator age group by using the appropriate combined weights. The standardized claim frequency for youthful operators, for example, would be:

$$(W_{11} + W_{12})X_{11} + (W_{21} + W_{22})X_{21},$$

and the standardized claim frequency for deductibles greater than or equal to \$150 would be:

$$(W_{11} + W_{21})X_{21} + (W_{12} + W_{22})X_{22}.$$

These latter standardizations, using the combined weights, enable valid comparisons to be made between the results for different deductible groups or between the results for different operator age groups without the effects of the other factor biasing the comparisons.

Example

For the 1989 Ford Probe two-door, the four claim frequencies were:

$X_{11} = 16.8$ $X_{12} = 11.9$ $X_{21} = 15.8$ $X_{22} = 10.3$

and the weights were:

$W_{11} = 0.05$ $W_{12} = 0.50$ $W_{21} = 0.05$ $W_{22} = 0.40$

The standardized claim frequency was:

$$(0.05)(16.8) + (0.50)(11.9) + (0.05)(15.8) + (0.40)(10.3) = 11.7.$$

Monthly Exposure Adjustment

To compare the results from new model year cars during their initial period of availability with the corresponding results from the previous model year's cars, it is necessary to adjust the latter results because of differences in the mix of exposure by month that contribute to that result. For 1989 models, exposure in each successive month increases as more of the new model cars are sold, and therefore there is more exposure from the later months than from the earlier months. For this same period, nearly all of the 1988 cars are on the road so that exposure in each month is essentially the same.

The effects of this difference in exposure can be removed by standardizing the monthly proportions of exposure in the results for the two model years. In the adjustment employed, results for the 1988 models were adjusted to have the monthly mix of exposure corresponding to the 1989 models, as shown in the following table.

MONTHLY ADJUSTMENT WEIGHTS

June-Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
0.01	0.02	0.06	0.12	0.19	0.27	0.33

Analogous to the earlier discussion of the standardization procedure for age and deductible amount, let

X_m represent a computed claim frequency adjusted for deductible amount and age in month m for a particular 1988 vehicle series, and

W_m represent the monthly adjustment weights cited in the preceding table.

Thus, the standardized claim frequency adjusted for monthly exposure is:

$$\Sigma W_m X_m.$$

Similarly, if A_m represents the computed average loss payment per claim adjusted for deductible amount and age in month m for a particular 1988 vehicle series, then the standardized average loss payment per claim is:

$$\frac{\Sigma W_m X_m A_m}{\Sigma W_m X_m}.$$

Thus, using these weights, weighted averages of standardized monthly claim frequency and average loss payment per claim results were computed for 1988 model year cars. Recall that the standardized average loss payment per insured vehicle year is then obtained by multiplying the standardized claim frequency by the standardized average loss payment per claim and dividing by 100. The results thus obtained are both standardized for age and deductible and adjusted for monthly exposure differences.

An assumption made in computing a standardized and adjusted result is that exposure in each month is independent of the factors deductible amount and operator age group. This assumption is valid because the distributions of exposure by deductible amount and operator age group are approximately the same for each month.

1. See Appendix C for Definitions.

2. For example, see Armitage, P. Statistical Methods in Medical Research, Wiley, New York (1971).

APPENDIX C
Definitions

Average Loss Payment Per Claim -- The total of all loss payments made for the claims for a group of vehicles, divided by the number of claims paid.

Average Loss Payment Per Insured Vehicle Year -- For a group of vehicles, the product of Claim Frequency and Average Loss Payment Per Claim, expressed as dollars per insured vehicle year. It should be noted that this definition differs from the commonly used insurance term, pure premium, but yields similar results.

Claim Frequency -- The number of claims for a group of vehicles, divided by the exposure for that group.

Collision Coverages -- As defined in insurance contracts, the coverage under which people insure their own vehicle against loss caused by collision.

Deductible Amount -- That portion of the collision damage cost borne by the policyholder. For computing results, deductible amounts are split into two groups; less than $150 (mainly $50 and $100 deductibles) and greater than or equal to $150 (mainly $200 and $250 deductibles).

Exposure -- The time interval an individual vehicle is insured. Exposure for a group of vehicles is expressed in units of insured vehicle years.

Loss Payment -- That portion of the collision damage cost borne by the insurer; in general, the total collision damage cost minus the deductible amount.

Operator Age Group -- The factor which distinguishes those vehicles whose rated driver is youthful from those vehicles whose rated driver is not youthful (see Youthful Operator).

Rated Driver -- The driver who, for insurance purposes, is considered to represent the greatest loss potential for the insured vehicle.

Vehicle Identification Number (VIN) -- A code, variously comprising both numbers and letters; normally, 8 to 17 characters in length, assigned to each vehicle by its manufacturer. The VIN uniquely identifies the vehicle within at least a ten-year time span and, in recent model year vehicles, contains coding which identifies the make, series, model year, and other characteristics of each vehicle.

Vehicle Classifications -- There are four major body style groupings of passenger cars - regular two-door models, regular four-door models, station wagons, and sports and

specialty models. Sports and specialty models include all two-seater cars, all convertibles, all midsize and large cars with two or fewer designated rear seating positions, and all luxury cars. Body styles are divided into size classes based on wheelbase (rounded to the nearest inch) defined as follows:

Small -- Vehicles with wheelbases less than or equal to 99 inches.

Midsize -- Vehicles with wheelbases greater than 99 inches and less than or equal to 109 inches.

Large -- Vehicles with wheelbases greater than 109 inches.

Vehicle Series -- A name denoting a family of vehicles, within a make, with the same wheelbase and a degree of commonality in construction such as body, chassis, etc.

Youthful Operator -- For the purposes of this report, all males (married or single) under 25 years of age and all unmarried females under 25 years of age.

APPENDIX D
1989 Vehicle Series Designations

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Acura	Small	Integra	2 DR	96.5	RS,LS
		Integra	4 DR	99.2	RS,LS
	Midsize	Legend 2D	SP	106.5	LS,L
		Legend 4D	SP	108.7	LS,L
Alfa Romeo	Small	Milano	4 DR	98.8	Green, Platinum, Gold
		Spider Conv.	SP	88.6	Veloce, Graduate, Quadrifoglio
Aston Martin	Midsize	Saloon	SP	102.8	
		Vantage	SP	102.8	
		Volante Conv.	SP	102.8	
	Large	Lagonda	SP	114.6	
Audi	Midsize	80 4D	4 DR	100.2	
		80 Quattro 4D	SP	99.9	4WD
		90 4D	SP	100.2	
		90 Quattro 4D	SP	99.9	4WD
		100 4D	SP	105.6	E
		100 Quattro 4D	SP	105.9	4WD
		100 SW	SP	105.6	
		200 4D	SP	105.6	
		200 Quattro SW	SP	105.9	4WD
		200 Quattro 4D	SP	105.9	4WD
Austin Rover	Midsize	Sterling 827	SP	108.6	S, SL, SLi
Avanti	Midsize	Avanti Conv.	SP	109.0	
		Avanti II	SP	109.0	
Bentley	Large	Continental Conv.	SP	120.5	
		Eight	SP	120.5	
		Mulsanne	SP	120.5	
Bertone	Small	X 1/9	SP	86.7	
Buick	Small	Reatta	SP	98.5	
	Midsize	Century	2 DR	104.8	Custom,Limited
		Century	4 DR	104.8	Custom, Limited
		Century	SW	104.8	Custom, Estate
		Regal	2 DR	107.5	Custom, Limited
		Riviera	SP	108.0	
		Skyhawk	2 DR	101.2	
		Skyhawk	4 DR	101.2	
		Skyhawk	SW	101.2	
		Skylark	2 DR	103.4	Custom, Limited
		Skylark	4 DR	103.4	Custom, Limited
	Large	Electra	4 DR	110.8	Limited, Park Avenue, T Type, Park Avenue Ultra
		Electra	SW	115.9	Estate, Brougham
		LeSabre	2 DR	110.8	Custom, Limited
		LeSabre	4 DR	110.8	Custom, Limited
		LeSabre	SW	115.9	Estate

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
BMW	Midsize	M3 2D	SP	101.0	
		325i Conv.	SP	101.2	
		325i 2D	SP	101.2	
		325i 4D	SP	101.2	
		325iX 2D 4WD	SP	101.2	
		325iX 4D 4WD	SP	101.2	
		525i 4D	SP	108.7	
		535i 4D	SP	108.7	
		635CSi 2D	SP	103.3	
	Large	735i 4D	SP	111.5	
		735iL 4D	SP	116.0	
		750iL 4D	SP	116.0	
Cadillac	Small	Allante Conv.	SP	99.4	
	Midsize	Eldorado	SP	108.0	
		Seville	SP	108.0	
	Large	Brougham	SP	121.5	
		DeVille 2D	SP	110.8	
		DeVille 4D	SP	113.8	
		Fleetwood 2D	SP	110.8	
		Fleetwood 4D	SP	113.8	Sixty Special
Chevrolet/Geo	Small	Corvette	SP	96.2	
		Corvette Conv.	SP	96.2	
		Metro	2 DR	89.2	LSi
		Metro	4 DR	93.1	LSi
		Prizm	4 DR	95.7	
		Spectrum	2 DR	94.5	
		Spectrum	4 DR	94.5	
		Sprint	2 DR	88.4	
		Sprint	4 DR	92.3	
	Midsize	Beretta	2 DR	103.4	GT
		Camaro	SP	101.0	RS, IROC-Z
		Camaro Conv.	SP	101.0	RS, IROC-Z
		Cavalier	2 DR	101.2	Z24
		Cavalier	4 DR	101.2	
		Cavalier	SW	101.2	
		Cavalier Conv.	SP	101.2	Z24
		Celebrity	4 DR	104.9	
		Celebrity	SW	104.9	
		Corsica	4 DR	103.4	LTZ
	Large	Astro Van	PV	111.0	
		Caprice	2 DR	116.0	Classic
		Caprice	4 DR	116.0	Classic, Brougham
		Caprice	SW	116.0	Classic
Chrysler	Small	Daytona	2 DR	97.0	ES, Shelby
		TC Conv.	SP	93.0	
	Midsize	Dynasty	4 DR	104.3	LE
		LeBaron	2 DR	100.3	
		LeBaron	4 DR	103.1	GTS
		LeBaron Conv.	SP	100.3	
		New Yorker (C Body)	4 DR	104.3	Landau

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Chrysler (cont'd)	Large	New Yorker 5th Ave	4 DR	112.7	5th Avenue Edition
		Newport	4 DR	112.7	
		Town & Country	PV	119.0	
Chrysler/ Plymouth/ Mitsubishi	Small	Colt	2 DR	93.9	GT, E
		Colt	SW	93.7	DL
		Colt 4WD	SW	93.7	DL
		Conquest	2 DR	95.9	TSI
	Midsize	Colt Vista	SW	103.3	Vista
		Colt Vista 4WD	SW	103.5	Vista
Daihatsu	Small	Charade	2 DR	92.1	CLS, CLX, CES
Dodge	Small	Daytona	2 DR	97.0	ES, Shelby
		Omni	4 DR	99.1	
		Shadow	2 DR	97.0	
		Shadow	4 DR	97.0	
	Midsize	Aries	2 DR	100.3	LE
		Aries	4 DR	100.3	LE
		Dynasty	4 DR	104.3	LE
		Lancer	4 DR	103.1	ES, Shelby
		Spirit	4 DR	103.3	ES, LE
	Large	Caravan	PV	112.0	SE, LE
		Diplomat	4 DR	112.7	SE, Salon
		Grand Caravan	PV	119.0	SE, LE
Dodge/Mitsubishi	Small	Colt	2 DR	93.9	GT, E
		Colt	SW	93.7	DL
		Colt 4WD	SW	93.7	DL
	Midsize	Colt Vista	SW	103.3	Vista
		Colt Vista 4WD	SW	103.5	Vista
Eagle	Small	Summit	4 DR	96.7	DL, LX
	Midsize	Medallion	4 DR	102.4	DL, LX
		Medallion	SW	108.3	DL, LX
		Premier	4 DR	105.5	LX, ES
Ferrari	Small	328 Conv.	SP	92.1	
		328 GTB	SP	92.1	
		328 GTS	SP	92.1	
	Midsize	Mondial	SP	104.3	
		Mondial Conv.	SP	104.3	Cabriolet
		Testarossa	SP	100.4	
Ford	Small	Escort	2 DR	94.2	GT, LX, Pony
		Escort	4 DR	94.2	LX
		Escort	SW	94.2	LX
		Festiva	2 DR	90.2	L, LX
		Probe	2 DR	99.2	GT, GL, LX
	Midsize	Mustang	SP	100.5	GT, LX
		Mustang Conv.	SP	100.5	GT, LX
		Taurus	4 DR	106.0	L, GL, LX, SHO

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Ford (cont'd)		Taurus	SW	106.0	L, GL, LX
		Tempo	2 DR	99.9	L, GL, GLS
		Tempo	4 DR	99.9	L, GL, LX, GLS
		Tempo 4WD	2 DR	99.9	ALL Wheel
		Tempo 4WD	4 DR	99.9	ALL Wheel
	Large	Aerostar	PV	119.0	Window Wagon
		Aerostar Extended	PV	127.0	Window Wagon
		Crown Victoria	4 DR	114.3	Crown Victoria, Crown Victoria LX, Crown Victoria S,
		Crown Victoria	SW	114.3	Country Squire, Crown Victoria, Crown Victoria LX, Country Squire LX
		Thunderbird	2 DR	113.0	LX, Super
GMC	Large	Safari Van	PV	111.0	
Honda	Small	Civic	2 DR	98.4	DX, Si
		Civic	4 DR	98.4	DX, LX
		Civic	SW	98.4	Wagovan
		Civic CRX	SP	90.6	CRX HF, CRX, CRX Si
		Civic 4WD	SW	98.4	
	Midsize	Accord	2 DR	102.4	DX, SEi, LXi
		Accord	4 DR	102.4	LX, SEi, LXi
		Prelude	2 DR	101.0	S, Si
Hyundai	Small	Excel	2 DR	93.7	GL, GLS
		Excel	4 DR	93.7	GL, GLS
	Midsize	Sonata	4 DR	104.3	GL, GLS
Isuzu	Small	I-Mark	2 DR	94.5	
		I-Mark	4 DR	94.5	
		Impulse	2 DR	96.1	
Jaguar	Midsize	XJ-S	SP	102.0	
		XJ-S Conv.	SP	102.0	
	Large	XJ6	SP	113.0	VDP
Lincoln	Midsize	Continental	SP	109.0	Signature
		Mark VII	SP	108.5	LSC, Blass
	Large	Town Car	SP	117.3	Town Car, Cartier, Signature, Gucci
Lotus	Small	Esprit Turbo	SP	97.8	
Maserati	Small	Spyder Conv.	SP	94.4	
		228 2D	SP	98.9	
	Midsize	430 4D	SP	102.4	
Mazda	Small	MX-6	2 DR	99.0	Assb, Turbo/Assb
		RX-7	SP	95.7	Turbo
		RX-7 Conv.	SP	95.7	
		323	2 DR	94.5	Turbo
		323	4 DR	94.5	Turbo

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Mazda (cont'd)		323	SW	94.5	
		323 4WD	2 DR	94.5	Turbo
	Midsize	626	4 DR	101.4	Turbo, Assb, Turbo/Assb
		929	4 DR	106.7	
	Large	Wagon	SW	110.4	
		Wagon 4WD	SW	110.4	
Mercedes-Benz	Small	560SL Conv.	SP	96.7	Roadster
	Midsize	190D	SP	104.9	2.5L
		190E	SP	104.9	2.6L
		300CE	SP	106.9	
	Large	260E	SP	110.2	
		300E	SP	110.2	
		300SE	SP	115.6	
		300SEL	SP	121.1	
		300TE	SP	110.2	
		420SEL	SP	121.1	
		560SEC	SP	112.7	
		560SEL	SP	121.1	
Mercury	Small	Tracer	2 DR	94.7	L, GS, LS
		Tracer	4 DR	94.7	GS, LS
		Tracer	SW	94.7	
	Midsize	Sable	4 DR	106.0	GS, LS
		Sable	SW	106.0	GS, LS
		Topaz	2 DR	99.9	L, GS, XR5
		Topaz	4 DR	99.9	L, GS, LS, LTS
	Large	Cougar	2 DR	113.0	XR-7, LS
		Grand Marquis	4 DR	114.3	GS, LS
		Grand Marquis Colony Park	SW	114.3	GS, LS
Merkur	Midsize	Scorpio	SP	108.7	
		XR4Ti	2 DR	102.7	
Mitsubishi	Small	Mirage	2 DR	93.9	High/Prem (L/LS), Turbo
		Mirage	4 DR	96.7	High/Prem (L/LS), LS
		Precis	2 DR	93.7	LS, RS
		Precis	4 DR	93.7	LS, RS
		Starion	2 DR	95.9	High/Prem (L/LS)
		Wagon	PV	88.0	LS
	Midsize	Galant	4 DR	102.4	High/Prem (L/LS), LS/GS
		Sigma	4 DR	102.4	High/Prem (L/LS)
Nissan	Small	Pulsar	2 DR	95.7	XE, SE
		Sentra	2 DR	95.7	
		Sentra	4 DR	95.7	
		Sentra	SW	95.7	
		Sentra 4WD	SW	95.7	XE
		240 SX	2 DR	97.4	XE, SE
		300ZX	SP	91.3	
		300ZX 2+2	SP	99.2	
		Van	PV	92.5	

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Nissan (cont'd)	Midsize	Maxima	4 DR	104.3	
		Stanza	4 DR	100.4	
Oldsmobile	Midsize	Calais	2 DR	103.4	S, International, SL
		Calais	4 DR	103.4	S, International, SL
		Cutlass Ciera	2 DR	104.9	Brougham, International
		Cutlass Ciera	4 DR	104.9	Brougham, International
		Cutlass Ciera	SW	104.9	Cruiser, Brougham
		Cutlass FWD	2 DR	107.5	Cutlass Supreme, Supreme International, Supreme SL
		Toronado	SP	108.0	Trofeo
	Large	Custom Cruiser	SW	115.9	
		Ninety-Eight	4 DR	110.8	Regency, Regency Brougham, Touring
		88	2 DR	110.8	Royale, Royale Brougham
		88	4 DR	110.8	Royale, Royale Brougham
Panther	Midsize	Kallista Conv.	SP	100.5	
Peugeot	Midsize	405	4 DR	105.1	
		505	4 DR	108.0	
	Large	505	SW	114.2	
Plymouth	Small	Horizon	4 DR	99.1	
		Sundance	2 DR	97.0	
		Sundance	4 DR	97.0	
	Midsize	Acclaim	4 DR	103.3	LE, LX
		Reliant	2 DR	100.3	LE
		Reliant	4 DR	100.3	LE
	Large	Gran Fury	4 DR	112.7	Salon
		Grand Voyager	PV	119.0	SE, LE
		Voyager	PV	112.0	SE, LE
Pontiac	Small	Firefly	2 DR	89.2	
		LeMans	2 DR	99.2	GSE, Aero
		LeMans	4 DR	99.2	SE
	Midsize	Firebird	SP	101.0	Trans/Am
		Grand Am	2 DR	103.4	LE, SE
		Grand Am	4 DR	103.4	LE, SE
		Grand Prix	2 DR	107.5	LE, SE
		Sunbird	2 DR	101.2	GT, SE
		Sunbird	4 DR	101.2	GT, SE
		Sunbird Conv.	SP	101.2	GT, SE
		6000	4 DR	104.9	LE, SE
		6000	SW	104.9	LE, SE
		6000 4WD	SP	104.9	STE
	Large	Bonneville	4 DR	110.8	LE, SE, SSE
		Safari Wagon	SW	116.0	Safari
Porsche	Small	911 Coupe	SP	89.5	Turbo
		911 Targa/Cabriolet	SP	89.5	Turbo
		911 2D 4WD	SP	89.4	
		928 Coupe	SP	98.4	S

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Porsche (cont'd)		944 Conv.	SP	94.5	S
		944 Coupe	SP	94.5	Turbo, S
Rolls Royce	Large	Corniche Conv.	SP	120.5	
		Silver Spirit	SP	120.5	
		Silver Spur	SP	124.0	
Saab	Small	900	2 DR	99.1	S, Turbo
		900	4 DR	99.1	S, Turbo
		900 Conv.	SP	99.1	Turbo
	Midsize	9000	SP	105.1	S, Turbo, CD
Subaru	Small	DL/GL	2 DR	97.2	DL, GL
		DL/GL	4 DR	97.2	DL, GL, GL Turbo, GL-10 Turbo
		DL/GL	SW	97.0	DL, GL, GL Turbo, GL-10 Turbo
		DL/GL 4WD	SW	96.9	DL, GL, GL Turbo, GL-10 Turbo
		GL 4WD	2 DR	97.0	GL, RX Turbo
		GL 4WD	4 DR	97.0	GL, GL-10 Turbo, RX Turbo
		Hatchback	2 DR	93.7	GL
		Hatchback 4WD	2 DR	93.3	GL
		Justy	2 DR	90.0	DL, GL
		Justy 4WD	2 DR	90.0	GL/RS
		XT Coupe	2 DR	97.0	GL, XT6
		XT Coupe 4WD	2 DR	97.0	GL, XT6
Suzuki	Small	Swift	2 DR	89.2	GTi
		Swift	4 DR	93.1	GTX
Toyota	Small	Celica	2 DR	99.4	ST, GT, GT-S
		Celica Conv.	SP	99.4	GT
		Celica 4WD	2 DR	99.4	
		Corolla	2 DR	95.7	SR5, GT-S, Hawaii
		Corolla	4 DR	95.7	Deluxe, LE
		Corolla	SW	95.7	Deluxe
		Corolla 4WD	4 DR	95.7	Deluxe
		Corolla 4WD	SW	95.7	Deluxe, SR5
		MR2	SP	91.3	T-Bar, Supercharged
		Tercel	2 DR	93.7	Deluxe, EZ
		Tercel	4 DR	93.7	Deluxe
		Van	PV	88.0	Deluxe, LE
		Van 4WD	PV	88.0	Deluxe, LE
	Midsize	Camry	4 DR	102.4	Deluxe, LE
		Camry	SW	102.4	Deluxe, LE
		Camry 4WD	4 DR	102.4	Deluxe, LE
		Cressida	4 DR	104.5	LE
		Supra	SP	102.2	Sport Roof, Turbo
TVR	Small	280i Conv.	SP	94.0	
		280i 2D	SP	94.0	
Volkswagen	Small	Cabriolet	SP	94.5	
		Fox	2 DR	92.8	GL
		Fox	4 DR	92.8	GL
		Fox	SW	92.8	GL
		Golf	2 DR	97.3	GL
		Golf	4 DR	97.3	GL
		GTI	2 DR	97.3	16V

Make Name	Vehicle Size Class	Series Name	Body Style	Wheel Base	Models Included
Volkswagen (cont'd)		Jetta	2 DR	97.3	
		Jetta	4 DR	97.3	GLI, GL/CARAT
		Vanagon	PV	96.9	GL/CARAT
Volvo	Midsize	240	4 DR	104.3	DL/GL
		240	SW	104.3	DL/GL
		740 SW	SP	109.1	GL, GLE
		740 4D	SP	109.1	GL, GLE
		760 SW	SP	109.1	GLE
		760 4D	SP	109.1	GLE
		780	SP	109.1	GLE
Yugo	Small	Yugo	2 DR	84.7	GV, GVS, GVL

HLDI Publications

The Highway Loss Data Institute has published annual reports on automobile insurance losses since 1973. The most recent publications are listed below.

R88-2 *Insurance Collision Report, Passenger Cars, Vans, Pickups, and Utility Vehicles, 1988 Models During Their First Year, 1987 Models During their First Two years, 1986 Models During Their First Three Years,* December 1988.

I87-1 *Insurance Injury Report, Passenger Cars, Vans, Pickups, and Utility Vehicles; 1985-1987 Models,* September 1988.

T88-1 *Insurance Theft Report; Passenger Cars, Vans, Pickups, and Utility Vehicles: 1988 Models During Their First Year, 1987 Models During Their First Two Years, 1986 Models During Their First Three Years,* May 1989.

Reports on special topics of interest using the HLDI data base are also published; a selection of special reports from recent years is listed.

A-5 *Autombile Insurance Losses, Collision Coverages; Relationships Between Losses and Vehicle Body Style, 1974 and 1975 Models,* December 1975.

A-7 *Automobile Insurance Losses, Collision Coverages; Annual Increases and Seasonal Variations 1972, 1973, 1974 and 1975 Models,* June 1976.

A-9 *Automobile Insurance Losses, Collision Coverage; A Comparison of Collision Claim Size Distributions for 1974, 1975, and 1976 Models,* November 1977.

A-11 *Automobile Insurance Losses, Collision Coverage; The Consistency of the Loss Experience of Specific Vehicles Produced in Several Years, 1975 to 1978 Models,* June 1979.

A-12 *Automobile Insurance Losses, Collision Coverage; An Assessment of the Effects of the Federal Safety Bumper Standard on the Losses for 1972 Through 1978 Models,* June 1980.

A-13 *Automobile Insurance Losses, Personal Injury Protection and Collision Coverage; The Effects of Car Size on Crash Losses, 1977-1980 Models,* May 1981.

A-14 *Automobile Insurance Losses, Personal Injury Protection and Collision Coverage; Comparisons of the Loss Experience of Two- and Four-Door Cars, 1978, 1979, and 1980 Models,* May 1981.

A-16 *Automobile Insurance Losses, Collision Coverages; The Frequency of Claims Involving Salvage; Subcompact and Compact Cars; 1980 Models,* January 1982.

A-17 *Insurance Losses, Comprehensive Coverage; Non-Crash Fire Losses; 1979-1980 Models,* February 1982.

A-18 *Insurance Losses, Theft Coverage; The Distribution of Theft Loss Payment Amounts; Passenger Cars, Vans, Pickups, and Utility Vehicles; 1981 Models During Their First Year, 1980 Models During Their First Two Years, 1979 Models During Their First Three Years,* June 1982.

A-19 *Insurance Losses, Theft Coverages; A Comparison of the Theft Loss Experience of General Motors Passenger Cars With and Without Factory-Installed Theft Deterrent Systems; 1980-1981 Models,* January 1983.

A-20 *Insurance Losses, Collision Coverages, A Comparison of the Collision Loss Experience of Subaru Models with 5 and 2.5 MPH Bumpers,* April 1983.

A-21 *Insurance Losses, Personal Injury Protection Coverages, Injury Claim Frequencies for Volkswagen Rabbits with Automatic and Manual Seat Belts, 1981, and 1982 Models,* April 1984.

A-22 *Insurance Losses, Collision Coverages, An Analysis of Salvage Credits, 1977 Through 1982 Model Year Cars,* July 1984.

A-23 *Injury and Collision Losses by Engine Option, Selected 1983 Models,* October 1985.

A-24 *Comparison of the Insurance Loss Experience of Unibody and Frame Construction Cars After a Collision Repair, 1981-82 Models,* October 1985.

A-25 *Relationships Between Losses and Vehicle Density, 1982-84 Models,* October 1985.

A-26 *Consistency of Model Year Injury Claim Frequency Results for Selected 1981-1983 Models*, May 1986.

A-27 *A Preliminary Evaluation of New York and New Jersey Insurance Injury Claim Results Before and After Enactment of Mandatory Seat Belt Legislation; 1983-85 Models*. May 1986.

A-28 *Insurance Injury Loss Experience in Eight States with Seat Belt Laws, 1983-86 Models*, July 1988.

A-29 *Insurance Losses Based on Garaging Location, 1985-87 Models*, June 1988.

A-30 *Automobile Insurance Losses, A Comparison of California and National Results*, May 1988.